# Croonian Lectures

ON

## SOME POINTS CONNECTED WITH THE ELIMINATION OF NITROGEN FROM THE HUMAN BODY.

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### LECTURE III.

GENTLEMEN,—At the close of my last lecture I alluded to the indications for special kinds of diet in some chronic diseases which seem to flow legitimately from the facts made out of the elimination of nitrogen and the places of formation of urea. The subject might be much more extended, and would lead us into other branches of diet. The influence on the fat of the body of increasing the nitrogenous supply while the supply of fat and starch is lessened, as in the plan of cure of obesity now familiarly known as Bantingism; the increased amount of oxygen absorbed into the body by increasing the nitrogenous supply, as shown by Pettenkofer and Voit; the evidence for and against the chances of nitrogenous starvation permanently influencing the absolute amount of uric acid, and its amount relatively to urea, and thereby affecting the occurrence of the gouty and gravelly affections,—these and points of a like kind might be enlarged upon. But I prefer continuing the straight line of my subject, and, having referred to the elimination of nitrogen in health, pass on to see how some pathological doctrines are influenced by these views of nutrition.

I fear I must almost have wearied you with the frequent repetition of the fact that in the healthy body the exit of nitrogen is mainly regulated by the entrance. So much is this the case that the usual actions of the body and the other articles of diet scarcely affect it. I have said how little even severe exercise alters the relation; mental work has perhaps even less effect. The varying action, within moderate limits, of the skin and lungs, has no influence; at least, I have produced the greatest sweating and quick breathing without effect. The usual non-nitrogenous articles of a healthy diet influence nitrogenous elimination as little. It used to be thought that coffee, which has so strong an effect on the nerves, lessened considerably the formation of urea. Professor Voit* and Dr. Squarey's† interesting researches prove that coffee has no influence whatever in this direction. The effect which is said by two observers to be produced by tea in lessening urea is so slight as to show that, if any effect at all is produced, which is doubtful, it is quite immaterial.

It was at one time universally believed that alcohol had a wonderful power of lessening the outflow of nitrogen, and alcohol was looked upon as a means of saving the nitrogenous tissues from disintegration. It was compared by one most eminent physiologist to "a box for savings," as it was supposed to lessen expenditure and to store up force for future work. The experiments I have communicated to the Royal Society prove, I cannot but believe, that alcohol, in even very large dietetic doses, has no such power, and, except by limiting the entrance, does not influence nitrogenous elimination at all. It was at one time believed that sugar and starch, by appropriating oxygen, saved the nitrogenous tissues from conversion into urea. Voit has shown that, when given in large quantities to dogs, they have this effect, but it is to a very moderate degree, and far below what was formerly credited to them.

An excessive quantity of drinking-water greatly increases the flow of urine, and carries out more urea in a given time; but it is not yet certain that, when the ingress is constant, it permanently increases the outflow of nitrogen. Chloride of sodium in large doses appears also to aid the elimination, and perhaps the formation, of urea, but its effect is not considerable.

The fact is that the articles of a healthy diet, when taken in usual quantity, do not interfere with the action of nitrogenous aliment; it appears, indeed, that nitrogenous food, by influencing especially the absorption of oxygen, has a greater effect upon them than they have upon it.

Then, again, the alterations in meteorological conditions, such as the temperature and weight of the air, the amount of moisture, &c., appear to me to have no appreciable effect in such a climate as this, where the changes are moderate. The evidence is too long to cite here, but I think I can state that, if there be any change at all, it must be very small. In the tropics, however, the case may be different, and I have no wish to prejudge this question.

In health, indeed, the constancy of the outflow of nitrogen in relation to its inflow is, under all common conditions, quite marvellous, when periods of six or eight days are taken. This being the case, it is certainly very surprising, when we pass from health to disease, to find ourselves in the presence of an order of facts entirely different. In many diseases the regularity between entrance and exit is lost; there is, so to speak, a complete dislocation, and the exit can no longer be predicted from the entrance. This is especially the case with the febrile affections.

It is just sixteen years since I had the honour of delivering before the College the Gulstonian Lectures. I selected for my theme the subject of Pyrexia, especially as connected with increased heat of the body and the action of the eliminating organs. To-day, in returning to the subject for a moment, I cannot but feel that a real advance has taken place during the sixteen years, and that our views of the phenomena of pyrexia are better defined; and I venture to congratulate the College on the skill and care with which the facts have been brought before it by the Gulstonian lecturer of the present year.

The increased excretion of urea and uric acid in pyrexia, and the occasional retention of these excretory products apparently from insufficient transformation, and their subsequent elimination, have now become familiar facts in pathology, and have been illustrated by analysis in almost all febrile affections.* The fact of the simultaneous increase of carbonic acid, which could not be absolutely affirmed sixteen years ago, proves that the increased elimination in fevers involves the carbon as well as the nitrogen. Sixteen years ago, in the narration of the phenomena of pyrexia, it was necessary to be satisfied with the phrase that the nitrogenous tissues underwent a more rapid metamorphosis than in health; but now we appear to be able to push a step or two farther into the mysterious recesses of this most common pathological state.

In trying to note the antecedent conditions which, so to speak, underlie the rapid destruction of tissue, ending in increased elimination of nitrogen, which attends the febrile state, it is necessary to bear in mind that the doctrines of nutrition as determined in health must, *ceteris paribus*, be equally true for disease. I refer especially to the belief that the albumen in the healthy body is in two states: one comparatively fixed and changing slowly—i.e., the albumen forming parts of structures; and the other movable, and circulating in the blood and fluids of organs—i.e., the store or circulating albumen: and that urea, uric acid, and the other nitrogenous excretions are not at once formed, or are so to a very slight extent, in the nervous or muscular tissues, but arise from the circulating albumen in the cellular constituents of the body.

In reasoning from the known to the unknown, the so-called simplest facts—i.e., the facts most frequently seen and most generally admitted—will give us the best chance of finding the clue. Now one of the best-known facts in pyrexia is, that during all fevers there is progressive emaciation and loss of weight, which affects all parts, but especially the muscles and nerves. The extent and rapidity with which this may occur are well illustrated in one of Huppert's cases. In a severe case of pneumonia the amounts of nitrogen going in and passing out were determined, and the degree of pneumonic consolidation estimated closely.

* Untersuch. über d-n Einfluss des Kochsalzes, des Kaffees, und der Muskelbewegunges auf den Stoffwechsel, p. 67. München, 1860.

† Medico-Chirurgical Transactions, vol. xlix.

* A very great quantity of urea was passed by a ram in the rutting season, according to Haughton. If the ram did not receive more food, this would show great wasting of tissues, for the urea could then only have had that source. Is there, then, something analogous to the febrile condition produced at this period?

From these data it was calculated that in five days 21 per cent. of the muscular tissue was destroyed; and as this is supposed to constitute usually 45 per cent. of the whole body, it follows that more than 9 per cent., or one-eleventh part, of the whole body was destroyed and discharged in five days.

Feeding largely with fat and starch will sometimes hinder the disappearance of fat; but feeding with nitrogen does not prevent, or only to a slight extent, the diminution of the nitrogenous tissues. That the voluntary muscular system is early affected is shown by the very great weakness which is so marked a feature in the first stage of all severe fevers, by the indisposition to move, and by the way in which the muscles soon lose consistence and become flaccid. These familiar facts are explained by the discovery of Zenker that in enteric fever the muscles undergo a sort of granular and waxy transformation which destroys their structure for the time; and that this condition is not peculiar to this fever has been proved by the discovery of Buchanan, who found the muscles of cattle-plague stricken animals similarly affected, and also by the observations of Waldeyer* on the inflammation of muscles, although his interpretation of the process is in one or two points somewhat different. That the involuntary muscles are also affected in the same way may be concluded from the weak action of the heart which so soon occurs, and from the constipation which is so common, and which implies loss of contractive power of the muscular fibres of the intestines. That the nutrition of the nervous system must be influenced in a way somewhat similar is proved by the marked nervous symptoms which indicate a sort of paralytic condition of almost all nerves, and by the way in which not only the special senses but the powers of the mind are weakened at the close of all severe fevers. And that an analogous condition affects other parts can be witnessed in the skin, where we see the nutrition of the hair, the epidermis, and the nails damaged; and that this is connected especially with the state of fever, and not with the mere weakness left after it, is evidenced by the way in which, in relapsing or recurrent fever for example, the white marks on the nails coincide with the attacks of pyrexia, and not with the almost apyrectic periods between them.

We have thus clear evidence of profound alteration in nutrition of these nitrogenous parts, which is widely different from the state produced in them by mere starvation or disuse; for then they slowly waste, but do not rapidly disintegrate. The general result is a continued loss of weight of all these parts until the abnormal temperature begins to fall.

Contrast now with these conditions the state as shown after death of some of the internal organs. The condition of the spleen is well known: it is congested and often hæmorrhagic; but, in addition, there is evidently increased cell-growth, especially in the early periods of life. The liver, instead of being wasted like the muscles, is of full size, often larger, and the terms congested, full of blood, &c., are generally applied to it in post-mortem records. There is for the most part no lack of bile, but in many fevers even apparently an excess. Sometimes a sort of granular degeneration seizes also some of the liver-cells, but this is far less marked than in the muscles. The pancreas is often swollen, and the intestinal glands are, as a rule, full and visible. Enteric fever is attended with special changes in Peyer's glands; but in other specific fevers these glands and the solitary glands are often swollen and prominent, and this, in fact, has sometimes led to difficulties in connexion with the diagnosis of these fevers.

These facts show conclusively, that while in the course of pyrexia the muscular and nervous tissues are not fed, but are disintegrating, the spleen, liver, and often other glands, are even over-fed.

Let us pass to another order of facts. During the course of the various fevers there is (as a rule) an increased elimination of nitrogen by the urine, without, as far as is known, any diminution in the exit by the bowels. This increased nitrogen does not come from the food as it would in health, for it is out of all proportion to it. The exit is far greater than the entrance. Let me cite one instance (an extreme case certainly) as an illustration. In a case of pneumonia recorded by Huppert and Riesell a man received daily ·59 grammes (9 grains) of nitrogen in the food, but he passed no less than 16·67 grammes (257 grains) daily, or nearly thirty times as much. Whence, then, does the urea come, for it must have some source? Evidently chiefly from the muscles and nerves, which are known to be wasting. And that this is so is shown by a remarkable fact. In persons who have been very badly nourished for some time beforehand, and who have therefore very small and flaccid muscles, and no doubt have also an ill-nourished nervous system, and who become attacked with a fever, the increase in the urea is inconsiderable, and sometimes does not occur. At least I have known this in typhoid fever in ill-fed Londoners,* and I presume it is so in all other fevers; and, remarkably enough, these persons often have a comparatively slight febrile heat, although the danger of the disease is not less. But why in such a person is febrile heat unattended as ordinarily by increased nitrogenous elimination? Clearly because no food is taken, and there is little supply to be obtained from the already wasted muscles and nerves.

If I have put these points clearly, the inference I wish to draw from them will be already obvious. In health the urea does not come from the muscles and nerves, except indirectly and in an inconsiderable degree. The greater part of the urea comes directly from the conversion of the albumen of the blood in the glandular organs. In febrile diseases, when food is not taken, the urea must still be made from the albumen of the blood; but this albumen itself must come from the nitrogenous structures of the body; and it seems quite obvious that the muscles and nerves furnish the greater part. We may therefore conclude that in disease, as in health, the urea is formed by the liver, spleen, &c., from materials furnished by disintegrating muscles and nerves. To put this in the phraseology which Voit has used: the organ-albumen, so stable in health, breaks down in pyrexia, and becomes rapidly changed into circulating albumen, which is then transformed into urea and the other nitrogenous excreta in the liver and other glands. Here we have an explanation of the excess of urea in pyrexia, and of the fact that that excess is most marked in the early days, when the muscles are least wasted, and in persons with largely developed muscles. It seems to me that this explanation throws light also on the condition of the liver and spleen as contrasted with the muscles, and it enables us to connect the healthy and diseased processes together in a way impossible before. We are also able to explain, perhaps, why in the same fever one person's spleen and liver suffer more than others. The prior condition of the muscular system and the rapidity of the fever, throwing a greater quantity of the organ-albumen into the circulation in a given time, may explain it, as the glands would therefore be called on to do more work. So also the greater enlargement of the spleen in young persons in some fevers may be thus accounted for. Sir William Jenner's curious observation, that the spleen in both typhoid (i. e., enteric) and typhus fever is equally enlarged in young persons, but that elderly persons (who in his cases suffered only from typhus) did not have the spleen enlarged, may perhaps be thus explained. In old persons all the glands are somewhat wasted and indisposed for rapid growth; the muscles also are small and flaccid: there is thus less materal brought to the spleen, and less tendency for the spleen to act upon this; and it may be that this difficulty of conversion is one of the dangers which are known to attend the course of fever in old persons. Then, perhaps, we see in this way how some of the dangers of fevers arise. We are accustomed to think favourably of a case in which the eliminating organs are acting freely. But suppose that a liver or spleen gets overtasked, that the cells begin to disintegrate, and the conversion of disintegrated albumen into urea can no longer occur. Why then half-changed albuminoid matters are retained in the blood and get deposited in organs, giving rise to secondary disorders, and producing those various complications which are known to be so dangerous. May not even the common albuminuria of fevers arise in this way? When the great glands have more work thrown on them than they can do, albumen may begin to emerge from the kidneys, just as the excess of the albumen of the egg will. I do not intend to imply that swelling of the spleen or liver is to be explained only in this way. The great enlargement of the spleen which occurs in ague, for example, arises too rapidly and changes too suddenly. No doubt a special condition exists. Another explanation must

* Virchow's Archiv, vol. xxxiv., p. 473.

* On the Composition of the Urine in Health and Disease, p. 283. 1869.

be found. Again, the circulation of putrescent matters with the blood exerts a specially irritating effect in the spleen, liver, mesenteric glands, &c. There are conditions of the spleen and liver which transcend the effects of simple rapid growth and overaction. Every disease has some peculiarities. I am only referring to the general state which underlies all.

But now can we go a step further, and say what is the cause that in pyrexia there is this undoubted condition of the muscular and nervous systems which leads to their wasting and exhaustion, and the furnishing in this way food for the action of the gland-cells? I dare hardly venture on a matter of such obscurity where at present we lose any power of experimental examination, and pass into conjecture, yet something may perhaps be said. It seems clear that the repair and decay of the voluntary muscles is regulated (under certain nervous control) by the will. That is to say, if we voluntarily exercise a muscle, it grows, is nourished, and is fit for its work; if we do not exercise it, it becomes flaccid and soft, ill-fed, and eventually disappears. These are facts, whatever may be the exact mode and time when nitrogenous addition or subtraction is made. Now, in pyrexia the volitional power over the muscles is lessened. The muscular incapacity is one of the earliest signs, so early that it can hardly depend on nutritional damage to the muscle; it must be owing to some paralytic condition of the nerves. This, then, may be one cause of wasting of the muscles; but it cannot be the only one. In pyrexia the muscles waste much more rapidly, much more thoroughly, and probably in a different manner from what occurs in mere disuse. There must be some second condition still more potent than the first. It seems probable that this also is to be found in some condition of the nerves. During the last few years we have learnt to know better the remarkable endowments of the nerves in increasing or restraining the functions of glands and muscles. That in this way, apart from mere alteration in the calibre of the nutrient bloodvessels, an effect in nutrition is exercised by nerves seems certain. We may suppose then, as has been done by Huppert, that there is some alteration in the inhibitory nerves of the muscles which allows rapid nutrient decay. This again is probable. But have we reached the end of the explanation? Is the condition in fever produced by conditions equivalent to section, or is there something more? I do not know how this question can be satisfactorily answered at present. Chemistry has brought the investigation to a certain point; now physics must step in, and the physiologist must investigate by electricity and the microscope the exact conditions which underlie this rapid disintegration; whether it is simply paralysis of the inhibitory nerves, or some special irritation leading to dissolution of the fibres. In addition, however, to wasting of the muscles and nerves, which produces most of the urea and uric acid in pyrexia, we must admit that there is wasting of other albuminous substances. The serum of the blood is poorer in albumen at the end of fevers; membranous structures are thinner, and some glands are smaller. Whether this is simply from deficiency of supply of food—i. e., is merely from inanition,—or whether there is active wasting from greater demands being made by organs on the store of albumen, is not certain. Then, again, more red globules are destroyed than in health, and there is some evidence of change in their composition. So that the explanation now given of the nitrogenous elimination, though it explains much, does not include all the conditions which make up this complex state of fever.

If to a certain extent the antecedents of the increased elimination of nitrogen in pyrexia have been indicated, can any explanation be given of the fact that, of the two chief forms in which nitrogen issues from the human body—viz., urea and uric acid—the increase of the latter is relatively greater than that of the former? This has been generally ascribed to the fever itself, but it has been lately affirmed by Senator and Bartels that it is confined to those fever cases in which there is insufficient or difficult breathing. I cannot think this will explain all cases, and another explanation may be given of some cases. Although the production of uric acid by the liver of mammalia has not been so well proved as the production of urea, the fact that uric acid has been found there, and that congestive conditions of the liver lead to large formation of uric acid as well as to increase in urinary colouring matters, seems to make it likely that uric acid can be produced in the liver. But it is probable that the spleen produces it more largely, since the largest disproportionate amounts of uric acid occur in the hypertrophy of the spleen which attends leucocythæmia and in ague. I had an opportunity* more than twenty years ago of analysing the urine of a thin old woman who had an immense leucocythæmic spleen. Both the urea and uric acid were increased, the latter enormously so, its increase being nearly fourfold; so that it seems difficult to doubt that the splenic hypertrophy and the uric acid had some relation. Subsequent analysis by Thierfelder and Uhle, by Ranke, and lately by Pettenkofer and Voit and by Berrell, have confirmed the fact of the increase of the uric acid in this disease. It is difficult to avoid connecting the increased uric acid in pyrexia with the frequent tendency to enlarged and congested spleen; and, if so, it may turn out that, while in health the liver produces relatively more urea than uric acid, the reverse is the case with the spleen.

There is another point connected with the increased elimination of nitrogen in pyrexia which is of great interest—viz., what is the relation between it and the abnormal heat which we recognise as the diagnostic mark of fever? At first sight the relation appears very close. The fact of the almost invariable coincidence of the two phenomena is an argument for some relation between them. When one occurs we can predict the other; or if it does not occur, we can explain why it does not. I lately met a case which seemed striking. I was examining the urine of a man on regulated diet—i. e., with a constant entrance and corresponding exit of nitrogen. He was exposed to chill, and had for thirty-six hours slight rheumatic and catarrhal symptoms. During this time his temperature rose 2° Fahr., and the elimination of nitrogen by the urine suddenly increased from 16 to 20 grammes, or nearly 20 per cent. Now surely between two phenomena thus coincident there must be some connexion.

Then abnormal heat would seem naturally to be explained by increased chemical change, and increased chemical change must be assumed if the body is wasting, and if the excretions are augmented above the standard to which they rise when on good diet.

But there are some difficulties in the way. I was able, in the Gulstonian Lectures of sixteen years ago, to assert positively "that the degree of febrile heat cannot be measured by the amount of excretions as a whole, or by any special ingredient;" that is to say that, admitting the usual coincidence of the two phenomena, and a certain degree of parallelism between them, it was impossible to use one phenomenon to measure the other. Umruh† has also lately proved that the increase of the nitrogen-elimination is not proportional to the rise in temperature. This may, however, be explained by supposing that there might be retention in some cases. Again, it is impossible for us to estimate the amount of action of the cooling processes, such as surface evaporation, which reduce the bodily heat, and which of course may vary in different persons, and in the same person on different days; so that although the relation is not proportional, so to speak, the two phenomena may yet be cause and effect.

A perhaps greater difficulty in connecting the two phenomena is the fact that in ill-nourished persons there may be a continued moderate or small excretion of nitrogen with occasional considerable elevation of temperature. We can explain the moderate excretion, for little organ albumen exists to be converted, and therefore little urea is formed; but how, then, is the heat produced? Here, then, the chemical conversion and the abnormal heat are not in accord. Still, it is really, I believe, the fact, that in emaciated people the febrile temperature is often not so high as in the vigorous and well-fed.

Then, again, there occur cases of high fever with what is believed to be very slight and transient tissue change, such as, for example, in young children. A slight attack of tonsillitis or febricula, lasting two or three days, sends up the temperature very high in children and even in some adults. There is no want of well-nourished muscles to furnish the supply, and yet the nitrogenous elimination can hardly be supposed to be equivalent to the high temperature. On this point, however, more observations are wanted; and it

* The Urine in Health and Disease, by E. A. Parkes, p. 331.

† Virchow's Archiv, Band xlviii., p. 203.

is quite possible that in the delicate tissues of children the organ albumen is less stable than in adults.

Again, the phenomena of ague, with its sudden high temperature, might be thought to be not easily explained by reference to increased tissue change. But, in fact, ague affords a strong argument for the connexion of the phenomena. In this disease the elements of the problem are simple, since the time is short, and the effect of food can be avoided. Dr. Sidney Ringer's valuable observations show that not only is there increased elimination of urea during the ague fit, but that there is a definite ratio between the elimination and the febrile heat. And, in addition, an observation of Ringer's, which has not, I think, received the attention it deserves, is of great moment. The common idea is that a fit of ague commences suddenly with a shiver. It is, however, well known that the temperature of the body commences to rise before the shiver. Ringer has taken one step further back: he has proved that increased elimination of urea occurs *before* the rise of temperature. An analogous fact has been lately noted in the relapsing or recurrent fever of Prague, by Prigram and Robitschek.* In that disease, which has some analogies with ague, it is well known that a high state of fever is ended by a sudden fall in febrile heat, and is followed by a state of apyrexia, which is then interrupted by another sudden febrile paroxysm; and this may occur several times. Now the above observers have shown that, in the apyrexia, the first sign of the paroxysm which is about to recur is indicated by loss of weight and increased ureal elimination; and this occurs, it may be, for twenty-four hours before the rise of the thermometer. In these two diseases, then, we have increased tissue change *preceding* thermometrical rise; and, looking to the produce of heat by chemical change, a strong impression is made upon one that the first condition produces the second.

It is true that in some febrile diseases good observers have found so great a want of parallelism between temperature and urea that they doubt the connexion. For example, Dr. Ringer has been unable to trace any connexion between temperature and ureal elimination in scarlet fever. The observations are numerous and carefully made; but the late period of the fever in some of the cases, the uncertain standard of comparison of elimination, and, in some instances, the doubt about the food, make me believe that there are reasons opposed to Ringer's conclusion.

To take, however, another and opposing order of facts. There are chronic diseases, such as saccharine diabetes, in which there is increased nitrogenous elimination without increase of bodily temperature; but this is, perhaps, to be explained in another way, to which I will refer presently. And there are diseases, such as tetanus, with occasional excessive bodily temperature, without apparently increased nitrogenous elimination. At present these are certainly difficulties. Yet, though the direct connexion between febrile heat and increased nitrogenous tissue destruction of some kind has not been perfectly proved, and is subject to some difficulties, it still appears the most probable explanation. If, failing it, we fall back on the idea first thrown out, I believe, by Dr. Mayer,† the illustrious author of the doctrine of conversion of forces, and believe that febrile heat is owing to the appearance in that form of some other kind of motion (apart from immediate chemical action, though that is the basis of all), we have a difficulty in indicating what form of energy has disappeared. It cannot be the movement of the voluntary muscles, though Mayer seems to argue for that view, for the most perfect rest does not produce febrile heat; so also the heart (to diminished action of which Mayer also refers) and other involuntary muscles act at the commencement of the fever as much as or more than before. Can there be any lessening of the molecular movements, or is there any cessation of electrical currents or nervous currents which both cause the appearance of heat and lead to nutritive metamorphosis, so as to underlie both the two chief phenomena of fever? Of course it is understood that all these forms of motion proceed from the force stored up in the food, and thence transferred to the blood and tissues, and the only question is the point of connexion between them. Increased tissue change is the most obvious process, or, so to speak, parent of febrile heat. And in these rapid molecular changes in the muscles, in the splitting up of albumen, and probably growth of cells which occur in the liver, we have, it seems to me, a readier means of accounting for febrile heat than in other ways.

Can we foretell, from our present knowledge of the chemistry of fever, what should be the treatment by diet? I do not think our knowledge is sufficiently precise for this, and practice alone can rightly guide us. Still some suggestions present themselves. There is in fever a waste of albuminous tissues; it would therefore at first sight appear an indication to feed those tissues with nitrogenous food. But it may be questioned whether they can be fed. Can disintegrating nervous tissue or voluntary muscle which is in a state of forced rest make any use of the albumen brought to it? Some of Huppert's observations indicate that it cannot be, and that the nitrogen is eliminated without being used by the wasting parts. And if so, what becomes of that albuminous food? It must be disposed of by the glandular elements, and add to the work already thrown on those organs. May it not be that, in the height of pyrexia, partial abstinence from nitrogen should be the rule, while the succeeding period of apyrexia is that in which it should be given, when the body retains it, and thus makes up the standard it had lost? I advance this with great reserve, and yet I cannot but believe, from experience, that the almost exclusively animal diet sometimes given in fevers is not so useful in sustaining strength as is supposed, and that if it were not for the loss of appetite, which limits the supply, we should perceive more clearly the bad effects. I have thought that the vast deposits of urates which in some cases mark the end of fevers might be really caused by excessive animal food, and I have actually seen gouty attacks brought on by that system of feeding.

On the other hand, in fevers the fat of the body disappears. A supply of fat to meet this is seldom attempted in practice, and yet there is no doubt that if digestible fats are given to fever patients the degree of emaciation is much less, and at the end of the fever the body seems more speedily to recover itself. Yet fats are often considered hurtful, and are sometimes excluded from fever diets, so that, with the large supply of animal food, the patients are brought almost into a state of Bantingism. Why should not cod-liver oil, which is so useful in subacute and even in acute febrile phthisis, or other fats, as butter, be used in all febrile cases when the stomach can bear them? And another argument for the use of fat with nitrogenous food is given by the experiments of Voit, which indicate that fat aids the formation of the organ-albumen—i. e., assists in the construction of the tissues. The starches and sugars are generally given in fevers, and it cannot be doubted that this is right, though probably the amount usually given is far too small. We know that febrile heat will not be increased by any aliments of this class; and it seems probable that the carbo-hydrates furnish force for the heart and other muscles to convert. The excellent effect of milk and whey, when taken largely, in preventing emaciation is an argument for this practice. In convalescence, the addition of fats and carbo-hydrates to the albuminous food is even more necessary; for a man may be even starved on a highly nitrogenous diet without them. The albumen is converted into urea without nourishing the muscular and nervous tissues.

An eminent physician desired for his epitaph the words, "He fed fevers." His pride in his treatment was legitimate; but it may be still a question with what they should be fed.

But I must pass to say a few words on nitrogenous elimination in some other diseases. If the increased nitrogenous elimination in fever from waste of the body appears to be now well ascertained, what evidence is there of any similar condition in chronic or febrile diseases? There can, I think, be little doubt that considerable difficulty exists in always ascertaining the absence of fever. Thus I was examining the urine of a man under a regulated diet, and after twenty-four days' experiments with a fairly constant outflow, there suddenly occurred for three days an increased elimination of urea beyond the previous limits of variation. The temperatures at 8 A.M. and 8 P.M. were unaltered. Had the morning and evening temperatures only been taken, as in most clinical observations, it would have been considered certain that there was increased elimination without fever. But the temperature was taken every two hours, and that

* Studien über Febris Recurrens. Von Dr. Alfred Prigram und Dr. Joseph Robitschek. Prague, 1869.

† Ueber das Fieber, Archiv der Heilkunde, 1862, p. 385.

proved that for five hours after dinner there was an excess of temperature over the same hours on other days with the same food. The excess amounted to 0·3° Fahr. Seven hours after dinner this had gone, and the mean temperature of the day was only about 0·15° Fahr. higher than that of other days. The differences were slight, but they were really evident, and they show that the after-food temperature should not be neglected. In this case the increased elimination and the febrile heat were probably connected with some congestive hepatic condition. There are, however, cases where, without any elevation of temperature, the exit of nitrogen exceeds the entrance, as when the digestive powers have become weakened, or the supply of food is cut off in any way. Until the body by loss of weight is brought to an equilibrium with the supply, the exit is naturally in excess. Cases of this kind are common, but they hardly meet the question, which is, whether there are diseases with actual increased waste of nitrogenous tissue not dependent on deficiency of supply absolute or relative to the work of the tissues. There is certainly one disease in which it seems probable there may be an excess; I refer to saccharine diabetes. Many analyses show an extraordinary amount of urea in diabetes;* but this is chiefly owing to increased supply of food. In only few cases at present has the exact entrance of nitrogen been determined; in fact, I think we can only avail ourselves of two cases: one of these is that examined by Pettenkofer and Voit; another is related by Gaehtgens,† who himself lived on precisely the same food as a diabetic man, and compared every result in the two bodies. Of course many other analyses have been made, but in almost all the exact entry of nitrogen has been left undetermined. The facts, as drawn from all the cases, seem to come out pretty clearly. The excessive nitrogenous elimination is chiefly owing to the large amount of animal food. It is probable that very little of the great quantity of albumen thus entering nourishes the tissues; but it is all destroyed in the liver, splitting up into urea and a carbo-hydrate. The urea and the sugar have then, as shown by Sidney Ringer several years ago, a certain ratio to each other.‡

But this will not account for all the urea. Pettenkofer and Voit have shown that their patient without food discharged in a day nearly 2 grms. more nitrogen than a much heavier healthy man; and, on a mixed diet, he discharged more than he received, though it was found possible to more than cover the discharge by a large supply. In Gaehtgens's patient, also, 2·19 grms. of nitrogen were discharged more than by a healthy man on the same diet. The nitrogenous tissues are therefore broken down in diabetes; and the albumen passing into the circulation and into the liver is, like the food coming from the alimentary canal, transformed into urea.

From the result of their experiments, Pettenkofer and Voit consider the essence of diabetes to be, not the sugar making, but the peculiar condition of the albumen of the organs which tends to disintegration. And they even suppose there may be a disease rightly called diabetes, but without any excess of sugar. And in this they, curiously enough, approach to the idea of Prout, who thought a ureal might precede a saccharine diabetes.

The implication of the albuminous structures in diabetes is clinically shown by the very early and great muscular and nervous languor. These conditions are probably of nervous origin, and lead to that peculiar tendency to disintegration which is one part of the disease, though not, probably, as Pettenkofer and Voit suppose, the only one. In this influence of the nerves, and the consequent increased destruction and nitrogenous elimination, there is a curious parallel between pyrexia and diabetes, though in many other respects they are so dissimilar.

If we admit, then, that in saccharine diabetes there is increased destruction of tissues without abnormal heat, is there not a doubt thrown on the statement that the increased metamorphosis and the abnormal heat of fever stand in a near relation to each other? In reply, it must be remembered that in diabetes conditions are present which are absent in fever, and which may tend to reduce temperature. There is a much less absorption of oxygen, as proved by Pettenkofer and Voit, a complete want, or nearly so, of oxidation of sugar, and an immense outflow of warm urine, which may almost compensate for the dry skin. There are heat-reducing causes in operation which must mask the effect of the increased metamorphosis, and may even slightly reduce the temperature below the normal standard. Besides, metamorphosis is very slow and very slight compared to fever, and a great part of the marasmus of diabetes is merely wasting from inanition; the body cannot be nourished, and is always in a state of starvation. After all, the increased elimination of nitrogen, independent of food, appears to be only about thirty grains a day, which is infinitely below the enormous elimination of fevers. A curious fact is, that if, in diabetes, fever from any cause supervenes, as from the introduction of the specific poison of enteric fever, or sometimes of erysipelas, the sugar disappears from the urine; its oxidation is then again possible, and in some way the condition is removed which in diabetes prevented the destruction of the sugar. Here, then, instead of an analogy, there would seem to be an essential difference between diabetes and pyrexia.

It has long been an opinion, drawn from physiological doctrines, that in diseases attended with great muscular exertion there must be an increase of muscular tissue-change, and consequent nitrogenous elimination. But late experiments on exercise, showing little change when the muscles are acting, and, according to some (though, as I conceive, wrongly), no increased efflux afterwards, have certainly shaken our belief that in diseases with muscular contractions there must be an increase of urea.

Tetanus is a disease attended with great contractions. As far as I know, the urine has been examined in only two cases. Both were by Senator.* In the first case only one day's urine (i. e., only one day before death) was examined; the urea was less than usual, although the man was taking a good deal of food. But in the second case, one of recovery, the urine was examined during eight days, the urea and creatinine being both determined. The food varied; sometimes the man ate little, then like a healthy man. We are not, however, certain of the exact ingress. But the egress was small. On only one day did the amount approach the healthy standard, and on some days the urea fell to very small amounts—viz., to 14, 16·6, and 17·7 grammes only. And Senator remarks that on those days which were marked by particularly severe spasms, "remarkably little urea was eliminated;" while the largest amount was on the day following a heavy paroxysm. I cannot help claiming this as some evidence in favour of my experiments, that in health strong muscular exercise slightly lessens the nitrogenous elimination at the time, but causes a moderately increased outflow afterwards. In tetanus, then, as far as the experiments go, there is no increase of nitrogenous elimination, but there is heightened temperature in many instances. In Senator's first case, for example, the temperature was 104·7° Fahr. two days before death, and 105·8° the day before; it sank on the day of death. In other cases of tetanus the temperature has been considerably higher, even 110° or 112°. In other instances, as in Senator's second case, where it varied from 98·6° to 100·76°, the temperature is not, or very slightly, increased. There is, therefore, a rather remarkable variation in temperature in different cases of this disease, which appears to be connected with the severity of the case. In extremely severe and fatal cases the temperature is the highest; it is noticeable that the extreme height is usually reached some time before death, and that the heat increases sometimes rather considerably after death. In these particulars the high temperature in tetanus would seem to be analogous to the heat of the mortal agony which occurs in other neuroses and in some other diseases, and which sometimes also increases post mortem, as in cholera. Is it not possible that the heat in tetanus and the other neuroses, and that which occurs after death, owns a different origin from the heat of the specific and symptomatic fevers? At any rate we can hardly consider that the very imperfect investigation of tetanus as yet available should be allowed to unduly influence our interpretation of the febrile heat in other cases.

In chorea there is often great muscular exertion, alternating, however, sometimes with intervals of rest, as in

* Some of the earlier analyses give a small amount of urea; but when this was not owing to deficiency of food, it seems probable that the supposed deficiency was owing to the defective methods of analysis of the earlier experimenters.

† Ueber den Stoffwechsel eines Diabetikers. Von Carl Gaehtgens. Dorpat, 1866.

‡ These observations will be found in my book "On the Composition of the Urine," 1860; where most of the statements on the chemistry of the diabetic urine up to that date are collected.

* Virchow's Archiv, Band xlviii., p. 285.

sleep. The nitrogenous elimination in chorea is as yet unknown—that is to say, in no case has the exit been brought into comparison with the entry; and in very few cases has even the exit been determined. I put aside, of course, as of no value, all statements that the urea was increased because a concentrated urine was passed which crystallised with nitric acid. Such a test shows merely relative increase of urea to water; but no absolute increase. It cannot but be surmised, both from the experiments on exercise and from Senator's observations on tetanus, that it will be hereafter found that there is little increased elimination in chorea; and that if it does increase, it will be in the periods of rest following the movements.

I must not, Sir, trespass further upon your time. There is scarcely a necessity for alluding to the lessened outflow of nitrogen, as compared with inflow, which occurs in convalescence from febrile disease; in some chronic diseases, where there has been previous loss and subsequent return of digestive power; in diseases with retention, as in dropsy and structural diseases of the kidney. All these and similar cases are easily understood. Time warns me that I must conclude with a few brief words of recapitulation.

It has been possible, by a consideration of the respective amounts of entrance and exit of nitrogen, and of the clinical phenomena which accompany variations in exit in disease, to answer to some slight extent the question where the nitrogenous substances which pass in as animal or vegetable albumen take on the forms under which they appear when they emerge from the body. How imperfect the answer is I need not say. But I think we have reason to hope that up to this point we have planted our steps pretty surely. We can assert with some confidence that it is not the great nitrogenous structures of the muscles and nerves, and perhaps not the nitrogenous framework of membranes and cells, which at once produce by their action urea and uric acid. These nitrogenous structures, when they are growing in youth, or when they are repairing during or after action in maturity, are able to attract albumen from the store in the blood, and to thus increase in bulk, or to replace what has become effete. And in this way we can account for the fact that the composition of muscles, and no doubt also of nerves, is greatly influenced by the nature of the nitrogenous substance brought to them in the food, and that their composition, in fact, is, within certain limits, that of the albuminoid substance they attract. Then, when, during or after use, a portion of the stable albumen of these organs loses its stability, and passes, we may suppose, into some different physical state, like that described by Hermann, in the muscles, it becomes unfit for the functions of the muscles or nerves; it can no longer contract or feel or transmit nervous currents. It is detached and passes into the blood, and becomes then the food of other parts. Then it is appropriated by the cellular organs—perhaps in part nourishes their framework or furnishes their peculiar secretion, and in part also splits up into urea, uric acid, and probably carbo-hydrates. The former are eliminated by the kidneys; the latter are then oxydised in the organs or blood, and appear as carbonic acid.

In youth, when the various tissues are growing, the power of attraction of the organs for albumen is greater than that of separation; when that mysterious power of growth, which is so wonderfully allied to time, comes to an end, and the comparative stability of completed growth ensues, the powers of attraction and separation balance; and, when old age begins, the power of attraction—i. e., of repair—is gradually lost. But it seems evident that, though the whole body is subject to this change, some parts undergo it earlier than others. The organs which are at all times more independent of the nerves—such as the isolated or aggregated cells—retain their powers of action longest; and we find in many old people, whose mode of life has not damaged their nutrition, that the liver, the spleen, or other glands retain size and action when muscles, nerves, and membranes, it may be, have largely wasted. This would seem to imply that the first failure of nutrition—viz., the loss of the power of attraction—is owing to commencing lessening of action on the part of the nerves; and we dimly discern that it may in future be possible to trace back the nutritive decline of many parts to gradual change in nervous supply.

The theory that the disintegrated albuminous products carried by the blood from the muscles and nerves, and the nitrogenous framework of organs generally, serve as food for other parts—viz., the glands,—explains some of the phenomena of starvation. The flow of urine to the last, the formation of urea, and even of uric acid, and the formation of bile, often of good quality and quantity, till near the end, are explicable because food is still furnished, by the decay of other parts, for the ureal and bile making parts of the body. And these parts, retaining their structure and powers, are capable of proper action when food is again given, and thus, as it were, retain the power of vitality longer than the more highly formed nervous and muscular parts.

In many of these matters we see a great parallelism between the phenomena of healthy nutrition and the nutrition of disease, and can better appreciate by what close links physiology and pathology are bound. And, seeing this, it certainly ought to encourage us to hope that before long we shall comprehend much better the intricacies of healthy and diseased nutrition, and shall know how to apportion the supply of food to the various necessities. And in this way, though we may be as little able to explain the intimate nature of the process as the electrician can understand the subtle power he can evoke and can so wonderfully control, we shall yet know sufficient to become still more practically useful to our fellow-men, and to make still better application of our knowledge to one of the highest uses to which knowledge can be put—viz., the mitigation of suffering and the relief of man's estate.

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REMARKS ON THE

## PATHOLOGY AND TREATMENT OF STRICTURE OF THE URETHRA.*

By W. F. TEEVAN, B.A., F.R.C.S.,

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I INTEND here to make a very few brief remarks on the pathology and treatment of stricture of the urethra, as time will not permit me to do more than merely enunciate a series of facts which I have by inquiry ascertained. It appears to me that, in order to arrive at any satisfactory results, we must be thoroughly acquainted with certain facts required to be elicited; next, see what are the indications as to a scientific treatment; and, lastly, we must find out the values of the varying remedial agents which we propose to ourselves as means of cure. I am constantly in the habit of putting to students who have undergone a professedly thorough course of surgical training, this simple question, When would you say that a man was suffering from stricture of the urethra?—and I rarely get a correct answer. Students have but a vague and unsatisfactory knowledge of the pathological state. How, indeed, could it be otherwise?—for most surgeons would declare that if a No. 10 English catheter could be passed into a man's bladder there could be no stricture; and we thus have this most extraordinary and serious fact presented to our notice, that the urethra may dwindle down to one-third its natural calibre without so grave a pathological state being recognised—nay, I would say, not even suspected. I consider that the diagnostic power of an educated surgeon ought to be something more and above the untutored perception of a working man; but in this complaint it is not so, for it usually happens that the patient is the first to discover the existence of a stricture by informing us that he has a difficulty in making water. Not until the enemy is at the door is the surgeon aware of his presence: scout or skirmisher he hath not. It ought to be our aim to recognise the disease in its earliest incipiency, and so abolish all necessity for any recourse to operative procedures. Can we do so? Most certainly. If there be one complaint which more than another worries a patient, whether he be rich or poor, it is the continuous presence of a gleet; and for this disease he goes about from hospital to hospital, seeking to get it cured. Now if such a patient present himself to us with a gleet of more than six months' duration, we shall always, on examining the urethra, find important pathological altera-

* Read before the Medical Society of London, March 6th, 1871.

tions, the most serious of which is contraction. The only instrument which can effect the acquirement of the knowledge we seek is the bougie à boule. I define stricture to be "any diminution of the natural calibre of the urethra, the result of the contraction of organised lymph." This definition, consequently, embraces the disease in all its stages; and if we diagnose the complaint in its earliest incipiency we shall render the sufferer an immense service, for we shall entirely purge the disease of its evil effects on his renal organs, and abolish all operative procedures. The first sign of a stricture is the presence of a gleet of more than six months' duration; and, long before we have the symptoms resulting from a mechanical contraction, we have usually some more or less well-defined symptoms, such as increased micturition, pain in the loins or perineum, trembling at the knees whilst urinating, or a sensation of cold water running down the spine. I would, however, insist upon one point, and that is, whenever a patient comes to us complaining of a gleet of some months' duration, we ought never to omit to examine the urethra with the ball-staff.

Now a few words as to the seats and physical attributes of strictures. Let it be ever kept in mind that stricture is atrophy, not hypertrophy; and that not only does the urethra become contracted, but also tortuous, which latter fact shows the inapplicability of metal instruments in the treatment of the disease. Strictures are usually situated at the triangular ligament, and their division into bulbous and membranous is entirely artificial, and not warranted by any facts; I group these together and call them alike "subpubic," thus simplifying the nomenclature. It will be found that this stricture is usually at a spot five inches and a half from the meatus externus. Why is this variety of stricture the most common? For the simple reason that, when there is increased vascularity between the canal and the ligament, the latter commences to act as an irritant and constricting agent by preventing the expansion of the urethra in the act of micturition. But you may say to me—How, then, is it we sometimes get a penile stricture without a subpubic one? For the reason that we constantly meet with men whose fibrous apertures are larger than they ought to be. If the aperture in the triangular ligament be larger than the normal size, the edges of the opening will not exercise any constriction on the urethra when expanded in the act of micturition. If, therefore, we meet with penile stricture only, we may conclude that it is because the patient has a very large aperture in his triangular fascia. If we examine one hundred patients, we shall find that eighty have the subpubic form of stricture; eighteen the penile variety, which is situated at a spot varying from 2¼ in. to 3¼ in. from the meatus externus; and the remaining two have strictures at the orifice, which I consequently call orificial. It is rare to meet with a subpubic stricture without finding some induration or leatheriness at the penile spot. Orificial strictures are often caused by chancrous ulceration. I have measured the urethræ of one hundred adult males, and find the average length to be 7¼ in., thus rather shorter than is usually supposed. Strictures give to the bougie à boule either the sensation of travelling through a *tunnel*, or the feeling of passing through a sharp and well-defined *ring*. I therefore speak of strictures as being either tunnel or ring strictures. Subpubic strictures are generally of the former kind, whilst orificial are of the latter. Penile strictures are as often ring-like as tunnel-like.

What is the result required to effect a cure of a stricture? No urethra can ever be said to be cured till the diseased and contracted portion is restored to its normal calibre. Some time ago I instituted a series of practical inquiries to ascertain what was the normal capacity of the urethra, and I found that the subpubic urethra will admit the terminal joint of the forefinger without laceration. The results will be found at p. 186 of the "Pathological Society's Transactions" for 1866. Now, all means which have not for their end the restoration of the urethra to its normal calibre will fail—that is to say, if the urethra, by dilatation sudden or gradual, rupture, or incision, be only enlarged to a diameter less than its normal capacity, we shall most infallibly have a return of the contraction, unless we from time to time keep up the diameter of the tube to that which we had stretched it. In severe forms of stricture there is only one instrument that can be introduced, and that is the French filiform bougie; and I venture to assert that, with patience and perseverance, a surgeon will rarely fail to introduce this instrument. Whatever treatment be adopted for stricture it must always be followed, and nearly always preceded, by gradual dilatation. It thus appears that there is *only one* which can be called *the treatment*—that by gradual dilatation; all other methods are merely auxiliaries. The bougie can nearly always dispense with the knife or dilator, but they are useless without the bougie. In a limited number of cases the bougie will fail to enlarge the contracted urethra beyond a certain point, or if dilated to a considerable size, it will speedily contract again. In such cases an operation is desirable.

All operations on the urethra may be divided into two classes: those which burst the stricture by lacerating, and those which divide it by cutting. Which are preferable? Surgical pathology settles the point at once, for we know that there is more contraction after a laceration than after a cut. Hence we ought to choose that kind of operation which is attended with the least contraction, which, consequently, will be the cutting one. From what I have seen of Mr. Syme's operation in the practice of different surgeons, and from all I have heard of it as practised by its originator, I have come to the conclusion that it ought never to be resorted to unless the state of the perineum is such as to preclude all other operations. The treatment of stricture by forcible rupture would seem in this country to be following a similar fate to what it had in Paris, where it was first introduced, as it has been discontinued by Sir W. Fergusson, Mr. Coulson, Mr. Henry Smith, and other surgeons. The unknown rate of mortality attached to it is not calculated to recommend it, and I am aware of twenty-one deaths which have followed its use in the hands of different hospital surgeons. The great advantages which gradual dilatation, when carried out by the French elastic instruments, possesses over all other methods is, that it is absolutely harmless, no death ever having taken place from its employment, and that it can be applied in the most diseased subject without the slightest fear. It is also the only treatment which can restore the urethra to its normal calibre.

But whatever operation be employed for the relief of stricture, it must be supplemented by the regular use of the bougie for the rest of the patient's life, as no known method of treatment is free from an infallible relapse apart from its use. It follows therefore that, inasmuch as in the majority of strictures the bougie can effect all, and more than the knife or dilator can do, and, unlike them, can never kill a patient, it presents itself to us for our acceptance with recommendations possessed by no other known instrument; and I venture to assert that the bougie will be used when urethrotomes and dilators are forgotten.

The treatment of stricture may be summed up—1. Gradual dilatation, wherever possible. 2. Subcutaneous urethrotomy, wherever desirable. 3. External urethrotomy, without a guide, wherever necessitated.

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ON THE

## ACTION OF LIGHT IN SMALL-POX.

BY J. H. WATERS, M.B.

### No. II.

THE action of light on vegetable nature is more easily studied than that on animal, its influence being, for a time at least, of more vital importance to the one than to the other. An excellent example of its effect is seen in Priestley's "green matter" which forms on water and damp places when they are exposed to the sunlight, and which consists of cells of the Confervæ in various stages of development; for although a certain amount of heat is necessary to their formation, it is to light that their existence is due, both in the first place and during their process of life. No degree of heat without light will produce these cells, however much the air may be charged with the germs from which they are formed. On water of any degree of temperature, placed in the dark, there is no formation whatever to be found; but if light is freely admitted, variations in

the heat of the water is of little consequence, and under the same degree of heat the formation depends on the intensity of the light. Plant-seeds allowed to grow in the dark are only developed to a certain extent; their leaves, &c., are found to be of a yellowish white, and their solid contents do not increase in weight, though their bulk may enlarge by the absorption of water; but if these plants are examined with care when exposed to the sunlight, they are found to be constantly decomposing the carbonic acid of the atmosphere, appropriating the carbon, and setting free the oxygen. For them to carry out this function they must be subjected to the light-giving rays of the solar spectrum, and in proportion to the illuminating power of the ray so do they perform this action. It is also found that the stomata (orifices in the cuticle of the leaves of the higher plants, for the admission of air, &c.) have two or more cells that guard their entrance, and perform the action of closing or of opening them; the former when the plant is in the dark, and the latter when light pervades the medium in which they are placed. These orifices perform for the vegetables in which they are found an analogous function to the sudoriparous glands of the animal. Thus, the green surfaces of plants grow towards the light, on account of the operations they have to perform under its influence; the roots avoid the light, as they throw out the carbonic acid by respiration; for if light is thrown on germinating seeds from below, the roots grow upwards, and the stems &c. downwards.

On animals the action of light is little known. It is evident it differs from that on vegetables in their first stage of nutrition, because animals do not perform any such acts of combination; but, by assimilating the vegetables themselves, obtain their nourishment so elaborately prepared for them by these, as it were, intermediate links in the chain or "circle of life." Animal surfaces do not therefore become so extended as those of the vegetable; still, there is no doubt that the health and well-being of animals do also in a great measure depend upon light. We know their colour is derived from its action, for the eyes and hair of the newly born are without any decided colour for days after their birth. When an animal has been found embedded in a stone it is transparent, and so sensitive that it will hide from the light if exposed to it. In the races of men where the sunlight acts upon their skin, we find freckles, a swarthy hue, and different degrees of pigmentary development up to black, according as there is more or less intensity in the light of the country in which they and their ancestors have lived. The pigment cells in the skin, to which the colour is due, are like true epidermis cells drying up and becoming flattened scales as they near the surface, thus imparting the blackness to it. They are best seen in their integrity when covering the bloodvessels of the choroid coat of the eye: here they present the polygonal form; each cell contains a nucleus, and the dark colour is caused by numbers of flattened round granules. Their chemical nature is not known; it is shown to resemble very nearly the cuttle-fish ink or sepia, which derives its colour from the cells lining the ink bag of the animal, and to have more carbon than most of the organic substances (about 58½ parts in 100).

Many researches show that light greatly modifies the development of animals, their health, and recovery from disease. Dr. Edwards has proved the first; for if tadpoles are properly fed, and have plenty of water, but are kept in the dark, he has remarked they never undergo the change into air-breathing animals, but remain fish,—large tadpoles. The appearance of animalcules in infusions of decaying organic matter is greatly retarded by being placed in the dark. If those animals which inhabit dark places, as the cockroach, are reared entirely secluded from light, they grow up almost colourless, like plants under similar circumstances.

Nations who inhabit hot climates, and wear little clothing, are remarkably free from deformity; on the other hand, those people who live in mines, in cellars, or in dark, narrow streets, have mostly misshapen and weakly children. This may be partly due to bad air, but greatly to insufficient light. Patients recover better from most diseases when their apartments are properly lighted. Even in health the effect of dark days is felt on the spirits of everyone, more or less.

The circulating fluid is the means by which all parts of the body are nourished. In man the blood's component parts are fibrine, albumen, corpuscles, saline matters, and ill-defined animal principles. When these sources are duly supplied, and when all the various organs and tissues abstract from it the special materials they need, a general balance is maintained in the system, and, as Mr. Paget has so well said, "each single part of the body, in respect of its nutrition, stands to the whole body in the relation of an excreted substance." But allow any of the rough materials for forming the blood to be too large or too small in quantity, or let an organ act imperfectly, and every part of the body becomes more or less unfavourably affected. In disease of the skin, its sensibility is greatly altered, according as the peripheral terminations of the sensory nerves in it are supplied with blood; anything that retards this supply diminishes their sensibility, and, if the flow be completely stopped, entire loss of feeling results, as in severe and prolonged cold. If there is a determination of blood to the surface, it becomes highly sensitive, and it is more easily acted upon by external stimulants, as cold, heat, light, &c.; the nerves being supernaturally supplied with nourishment, they convey to the brain perverted impressions. Thus the temperature of the part does not really increase beyond that of the left ventricle of the heart; but the greater impressibility of the nerves leads the patient to imagine it does; there is greater appreciation of the heat, and even magnifying of the degree. Pain also is due to their excited state, and to pressure upon the terminal branches by the dilated bloodvessels. In disease nature frees herself from the morbific poison by the action of the glands, and of these perhaps the most used are the sudoriparous and the sebaceous. It is by these the poison is eliminated in small-pox; but by their excessive action inflammation is set up, the nerves become hypersensitive, they magnify the effect of external stimulants, and by reflex action the inflammation of the part is increased, when thus exposed to what in ordinary circumstances would be but healthy and desirable stimulation; the reflex inflammation preventing the natural elimination of the disease, and the two causes increasing its severe symptoms. The tissues thus injured approximate to the condition of dead matter; and, as Mr. Lister as shown, pus is thus formed, which, being reabsorbed, causes secondary fever—that is, true surgical fever, as Mr. J. E. Erichsen says, "occurring only as a consequence of, and secondary to, local disease or injury." The stimulating action of light has a detrimental effect in this disease, and for this reason I have followed John of Gadsden's idea, excluding it from the patient in the eruptive stage. In practice I find the most beneficial results to follow, rendering what has hitherto been so dangerous and loathsome comparatively mild and inoffensive. It is wonderful to see a patient with severe confluent small-pox on face and body sitting up, with no fever, no head symptoms, no pain, enjoying her food, no itching, tingling, or bad smell, or, in fact, aught but a stiff, strange feel of the skin, which is described as "rather unpleasant," followed by no secondary fever and no other complications; and yet this is the history of a case I attended a few weeks back, and is the description of all, even the most severe cases.

What the chemical action of light may be, is not yet known. There is little doubt that both animals and vegetables depend upon it for their well-being in a far greater measure than is supposed.

March 30th, 1871.

## EPITHELIUM AND SKIN GRAFTING.

BY R. W. GOLDIE,
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IT is well, I think, that not only the successful, but the unsuccessful, results of any new form of treatment should be made known. Were this course always pursued, many a so-called discovery for the relief of suffering humanity would long ere this have been relegated to the region of the unknown. But, as it is, we find the shelves of our medical and surgical wardrobes literally groaning under the load of so-called remedies—remedies whose very existence is due to casual contributions, narrating how that a case of tetanus, e. g., got well during the administration of so many grains

of chloral; or how a certain case or number of cases of acute rheumatism recovered while the poor patient was gulping down with religious punctuality ounces of mixed salts of potash; or, to give a third instance, how that—say—thirty cases of erysipelas recovered during the existence of which tincture of the muriate of iron was given freely and frequently.

Now, it may be well to publish long strings of cases of rheumatic fever that have been "cured" by alkalies; but I take it to be much better, both for patient and physician, if an equally long list, with equally good results, can be cited after treatment with mint-water; for if this means anything, it means they would have done just as well with nothing at all. Moreover, if rheumatism will do as well with mint-water as with alkalies, what a gain have we here—first, in relation to the patient, seeing we both treat the mind and give a palatable potion; secondly, with respect to our Pharmacopœia; and, thirdly, with regard to the cause of the disease. We have hitherto been combating acids in the blood. Mint-water is no antacid; yet the patients recover. A fourth example of the evil of getting into a groove, and conceiving that any divergence from it will be attended by evil results, is strikingly exemplified in the treatment of carbuncle. "Crucial incision" was once deemed *the* only method of curing carbuncles. Mr. Paget, in a clinical lecture published in THE LANCET of Jan. 16th, 1869, pretty conclusively shows that there is no particular good to be derived from the crucial incision—received by tradition from our predecessors.

I make these few preliminary remarks to show the necessity of sifting and weighing well the evidence in favour of any form of treatment before adopting it, and also because they tend to prove that from most unlikely remedies we get often the very best results. Dr. Fiddes, in THE LANCET for Dec. 17th last, suggested the scraping of epidermic scales from the outer surfaces of the limbs as an efficient substitute for the more painful procedure of skin-grafting. Believing this to be a great improvement on the transplantation of skin entire, I determined to give it a trial in every case which presented a healthy granulating surface in a sound constitution. Accordingly, having in the wards the following four cases, I treated each one in the way suggested by Dr. Fiddes—i. e., by scraping scales from the limbs with an ordinary bistoury, and applying them to the granulating surface with a small brush.

CASE 1. — Sarah M——, aged twenty-six, admitted on Dec. 15th, 1870, suffering from a callous ulcer in the lower third of the leg, of twelve months' duration. It extended all round the leg except one inch behind, and was three inches broad. Poultices to be applied, and to remain in bed.

Jan. 2nd, 1871. — Granulations on a level with the surrounding skin, and looking red and healthy. I grafted three pieces of skin, and covered a portion of the surface two inches square with epidermic scales; strapped with soap plaster.

5th. — On taking off the plaster the skin-grafts were found adhering, but no evidence of the presence of epidermic scales. Restrapped.

It would be alike tedious and useless to describe the daily appearance of the ulcer. Suffice it to say that ten days after the application of the skin and epidermic scales the latter gave no manifestation of their presence, whereas the former was growing, and at the present time (Feb. 17th) the ulcer is almost healed.

CASE 2.—Jane F——, aged thirty-two, admitted Jan. 17th, 1871, with a circular-shaped ulcer of two years' duration, situate in the most common position—namely, on the outer aspect of the lower third of the leg.

Jan. 26th.—The surface looking exceedingly well, I covered it with scales scraped from the skin of her leg. Ulcer strapped, and bandage applied.

30th.—No visible change in the ulcerated surface, save that it is healing from the circumference. Restrapped.

Feb. 6th.—The scales having failed to adhere, six skin-grafts were applied, with the view of expediting the cure.

CASE 3.—Jas. C——, aged thirty-four, admitted Jan. 19th, 1871, having a raw surface extending along the back of his arm from the elbow to the axilla, and four inches wide; the result of erysipelas.

Jan. 26th.—The surface is entirely covered with epidermic scales. Strapped.

30th.—There is no apparent change. Restrapped.

The only noticeable feature in this case at the subsequent dressings was the smooth and glassy surface of the sore; this I ascribed to the soap-plaster. As the skin showed little tendency to contract, I applied seven pieces of skin, five of which adhered, and are doing well.

CASE 4.—John M——, aged twenty-eight, admitted Jan. 24th, 1871, with the right arm almost entirely denuded of skin from the axilla to the wrist, the result of a scald.

Jan. 26th.—Surface completely covered with scales scraped from his arms and legs. Strapped.

Briefly, I may state that in this as in the other three cases there was never any reparation whatever which was not of and from the circumference of the sore.

The lesson to be learnt from these four failures is this: that epidermic scales will prove useless in cases in which skin-grafting succeeds, as in Case 1. Also, that in no case can you with certainty predict success; whereas in almost every case you can rely upon the skin-graft adhering and growing.

No patient has ever objected to have his skin cut, and many have asked to have more "bits" applied, looking upon the rapidity of cure as ample guerdon for their injured feelings.

Manchester, Feb. 17th, 1871.

# A Mirror
## OF THE PRACTICE OF
# MEDICINE AND SURGERY
## IN THE
# HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## ST. BARTHOLOMEW'S HOSPITAL.

(THE OUT-PATIENT DEPARTMENT FOR WOMEN'S DISEASES.)

ON the 15th inst. we paid a visit to the department devoted to the special treatment of diseases of women. The attendance of patients was very numerous, and Dr. Greenhalgh and Mr. Godson availed themselves of the abundant materials thus afforded to give clinical instruction, and to demonstrate the use of mechanical appliances in this class of ailments. Among the diseases we noticed were pelvic hæmatocele, pelvic cellulitis, ovarian tumour, vascular tumour at the orifice of the urethra, fibroid tumours of the uterus, polypi, carcinoma, hypertrophy of the cervix, vesicocele and rectocele, and the various displacements of the uterus. These latter perhaps formed the larger proportion of the cases. Where displacement was unattended with inflammation treatment by mechanical support was adopted. A pessary which appeared to be in great favour for treatment of cases of retroversion, flexion, prolapsus, and procidentia, was Dr. Greenhalgh's modification of Hodge's well-known apparatus. Three of its sides consist of metal wire covered with soft india-rubber; but the narrow side, which is intended to rest against the anterior wall of the vagina, consists of soft india-rubber only. Another modification of this pessary, designed for cases of vesicocele, was provided with bars of soft india-rubber passing transversely between the long sides of the quadrilateral. Both these instruments appeared to possess advantages over the old form of pessary, and, according to the accounts of the patients, answer exceedingly well. There were several cases of fibroid disease, of which the prominent symptom was profuse hæmorrhage; these were all treated with ergot of rye, on which drug, combined with some other remedies, reliance was almost entirely placed to arrest uterine blood-discharges. For a case of mechanical dysmenorrhœa, in which the constriction was at the internal os and caused considerable obstruction to the introduction of the sound, a laminaria tent was introduced, in order that, by dilatation of the passage, the

next monthly discharge, which was expected to occur in the course of two or three days, might be rendered less painful. The introduction of the tent was effected by means of a modification of Dr. Barnes's tent-probe, which has been prepared under Mr. Godson's direction. The novelty of this instrument consists in the point intended for the reception of the tent being connected to the stilette by means of a screw which permits of rotation, and of a small hinge-joint immediately above the screw, which gives a free lateral movement. The combination of these two contrivances confers on the point and the tent attached to it all the range of movement of a ball-and-socket joint, and enables the tent to find its way easily and without violence through the cervix in cases in which the direction of its channel differs from that of the axis of the instrument as it has to be held by the operator. It possesses over Dr. Greenhalgh's forceps, on which the tent can only move from side to side, the additional advantage of permitting the introduction to be made without the aid of a speculum.

## UNIVERSITY COLLEGE HOSPITAL.

### EXTENSIVE ATTACK OF TINEA CIRCINATA; UNUSUAL CHARACTERS; COMPLICATION WITH URTICARIA AND ECTHYMA; RAPID RECOVERY.

(Under the care of Dr. TILBURY FOX.)

J. H——, aged thirty-nine, came under notice on the 15th of December, complaining of itching all over the body. He said the disease began in August, 1869, as an eruption about the elbows and around the anus; it spread down the inner part of the thigh, and subsequently appeared at the back of the neck in the form of a red ring; "it seemed to dust off like moist sugar, and it had a 'crumbly' character; the disease did not discharge." The man meant to say that there was a branny desquamation. It never went away, even after taking acids, salts, and courses of arsenic, though it lessened in severity. It was always very irritable at night-time, when the man was obliged to strip and begin to scratch or to rub. Recently the disease has become much worse, and there appears to have been a certain amount of urticaria superadded.

*Present state.*—There is an eruption festooning over the inner surface of the thigh for five or six inches downwards, of an erythematous kind, the central portion being only slightly red and discoloured, and somewhat scaly. It looks slightly swollen, feels dry and harsh, and is covered over by a few fine scales. Towards the circumference the redness increases in intensity, and takes the form of broken-up rings; the boundary edge of the patch is raised, well defined, slightly papular, and of a very bright red hue, having the characters belonging to so-called "erythema marginatum," or to eczema marginatum of a less severe form than usual. The same eruption is seen festooning over the buttock behind from the rectal region. The boundary edge is papular. There are erythematous patches at the bend of each elbow, the front boundary of the axillary region, over the scapular region on either side, and on the outer surface of the calves of both legs. The disease is fairly symmetrical. There is also an erythematous patch at the back of the neck, having the general character of a fading erythema, interspersed with small red papules.

There are certain peculiar and very special appearances presented by four patches of the disease on the outer surface of the shoulders and the upper arms. The central parts of the erythematous areas, which have still the papular and well-defined edge, are upraised into large vesicles crowded together over a space of the size of a shilling and more, by the effusion of serous fluid beneath the cuticle. The vesiculation, or rather bullulation, is more marked than in ordinary herpes zoster, and yet not so pronounced as in pemphigus. The characters are those of an urticaria bullosa, superadded to those of so-called "erythema marginatum." Round about these patches are here and there a few very distinct ecthymatous pustules, and the remains of many scratchings. Within the last few days the patient has been attacked on the right side with shingles (herpes zoster). No internal treatment was employed, but the patient was ordered to bathe the surface very thoroughly with a lotion of hyposulphurous acid (one part to six of water), and two drachms of hyposulphite of soda to six ounces of water, and a certain amount of calamine powder. The man rapidly improved, and in a short time was convalescent.

*Remarks.*—Firstly, Dr. Fox pointed out that in this case a local disease had been treated as a general disease by internal remedies, and had run its course, now better and now worse, according to circumstances, entirely unchecked by remedies. Secondly, it illustrated the importance of remembering carefully that disease of the skin may, as it becomes chronic, be complicated by accidental and secondary occurrences, which very considerably, if not almost entirely, mask the real and primary disease. In this instance, the urticaria, the ecthyma, the bullulation of the patches—i.e., the effusion of serous fluid under the cuticle,—were the consequence of the continuance of the irritation of the skin by the persistence of the primary morbid change, and the scratching practised for relief by the patient. The history of the case showed that until lately the disease was of a much simpler character. The primary disease was evidently parasitic; and on examining the scales from the erythematous and scaly patches, mycelial threads were at once detected ramifying through the epidermis, the fungus being, of course, the trichophyton. The commencement of the disease about the fork of the thigh and perineal region, its erythematous nature, its circular form, its clearing and subsequent desquamation in the centre, its well-defined and somewhat papular edge, and the itching at night with warmth, pointed to a fungus as the cause of the disease. The features were not those of an eczema, for there was no discharge at all. Dr. Fox regarded the disease as the same as the eczema marginatum of the Germans, only that the thickening and staining of the integuments was less marked than usual; but he classed it under the term tinea circinata (ringworm of the general surface of the body), which he uses to include all forms of vegetable parasitic disease of the non-hairy parts; so-called eczema marginatum being in reality not an eczema, but tinea circinata modified by its occurrence in a situation where intertrigo is easily induced, so that the disease appears to assume the feature of an eczema, the heat and moisture causing the rapid growth of the fungus threads among the epithelial tissues, this in turn at once accounting for the greater infiltration of the tissues by inflammatory matter, and the rapid spread of the disease over the thighs and buttocks. In the present case the disease on the other parts of the body was that ordinarily seen in tinea circinata, except that the erythematous rather than the desquamating aspect was specially marked. Tinea circinata varied in aspect considerably according to the character of the soil and the rapidity with which the fungus dies out in one place or spreads in another. It might be markedly erythematous in one, or herpetic in another. Lastly, the case showed how necessary it is to examine for fungus the desquamating scales of every patch of disease, which, being circular, itches with increased warmth, takes on an herpetic aspect, and desquamates in the centre, whilst the area enlarges and the edge spreads equally in all directions, the edge itself being well marked and more or less raised into papulations. Tinea circinata might be otherwise confounded with eczema, simple herpes, and the slighter forms of psoriasis.

### PRIMARY SORE ON THE LIP OF A CHILD.

Dr. Tilbury Fox regards the following case as a conclusive illustration of the fact that the secretion of a secondary syphilitic sore may give rise, by inoculation, to an indurated chancre possessing all the characters and qualities of a primary hard sore.

Annie C——, aged five years, came to the hospital on January 14th, with her mother, who was under treatment for secondary syphilis. The mother called attention to a sore on the lip of her little girl. At the left side of the lower lip was a circular sore, about the size of a threepenny piece, having all the characters of a primary indurated chancre; the glands on the left side of the jaw were hard, enlarged, and somewhat painful; the child was feverish and very languid. Subsequently some of the glands along the sterno-mastoid became enlarged. The child was placed at once under the influence of grey powder and of iodide of potassium, but the disease continued without much change for a month, when the induration about the sore had much subsided and the gland had lessened in size, but the child

was exceedingly anæmic and had lost flesh; her throat was very sore, and she was still feverish. On March 10th, the sore on the lip had practically healed; the child had improved in every way under the continued use of the grey powder once a day for the last fortnight, with chlorate of potash, quinine, and reduced iron twice a day. The girl had subsequently a few pustules about the scalp here and there, and one well-marked tubercle at the bend of the elbow on the left side, but is now convalescent again.

The patient's history left no doubt in Dr. Fox's mind that the disease was communicated to the child from a secondary sore on the lip of the mother, with whom the child had always been in the habit of sleeping.

## PROVINCIAL HOSPITAL REPORTS.

### LEEDS GENERAL INFIRMARY.

#### CASES OF HYDROPHOBIA.

FOR the following interesting notes of two cases of hydrophobia we are indebted to Mr. A. F. McGill, the house-surgeon.

CASE 1.—S. B——, aged thirty-seven, was admitted on the morning of Feb. 7th, under the care of Mr. Samuel Hey. It appeared that on the 26th December he had received from his dog a small bite or scratch on the thumb; this was cauterised with nitrate of silver, and, as it soon healed up, no more was thought about it. Later, however, the dog became distinctly rabid, and was killed. Five weeks after receiving the bite the man began to feel unwell, and was thought to be suffering from a cold in the head. On the 3rd February he took to his bed, and complained of pain which extended from the situation of the bite as far as the shoulder; having also some pain in the other shoulder, he attributed his symptoms to rheumatism. On the following morning he felt no worse, and took his food as usual. At four o'clock in the afternoon, being thirsty, he was in the act of lifting a cup of water, when he discovered that he could not raise it to his lips in consequence of a spasm which drew back his head. He rambled slightly during the night, and the next morning he became noisy and violent. On the morning of the 6th his delirium was still more violent in spite of several hypodermic injections of morphia.

When brought to the infirmary on the following day he was so excited and violent that it required several persons to restrain him, but having been isolated for a time in a padded room he became quiet, and was able to give a rational account of himself. At times he became the subject of delusions similar to those of delirium tremens. He fancied that a boy under his bed was stabbing him and attempting to murder him. He complained also that there were hairs in his mouth, and spat out small quantities of viscid saliva. He complained of his breath being short, and it was noticed that about every quarter of an hour there occurred a spasm of the respiratory muscles which fixed his chest. His pupils were dilated, his eyes rolled from side to side, and his face had a wild look. His pulse was feeble, 120. Priapism frequently occurred. When asked whether he was thirsty he replied that he was, but that he knew it was of no use for him to try to drink. His tongue, which he could put out without difficulty, was thickly coated with white fur all over, except at the edges. When, yielding to persuasion, he took a cup of water and endeavoured to raise it to his mouth he was unable to bring it within less than three inches of it, though he apparently made a great effort to do so. When the cup was placed to his lips he drew back his head with a frightened look, apparently on account of a spasmodic contraction of the muscles of the jaw and the back of the neck. He was ordered half a grain of morphia hypodermically, and continued in much the same state till 6 P.M., when he became more violent and shouted "Murder!" continually at the top of his voice. Chloroform was then administered. A pint of beef-tea with two ounces of brandy and a drachm of bromide of potassium was given by the stomach-pump. He soon recovered from the chloroform and became as violent as ever. At 10.30 a teaspoonful of water was poured into his mouth, but he spat it out violently, and his breathing became arrested to such an extent that he appeared for a few minutes to be about to die. He rallied, however, and continued to be violent until midnight, when he became quiet. He died, apparently asphyxiated, at 3.30 on the following morning, just eighty-six hours after the development of the first distinct symptoms.

CASE 2. — Emma E——, a mill hand, aged thirteen, was admitted on Feb. 13th, 1871, under the care of Mr. Jessop. Her mother stated that she was quite well up to the preceding Wednesday, when she stayed away from her work. On the following day she was induced to resume her occupation, but on the third day she was again obliged to remain at home. She then complained of pain in the back, restlessness, and intense thirst. On the fourth day she continued in much the same state, but was somewhat excited, and drank largely to quench her burning thirst. On the fifth day she was seized with the first distinct symptoms of hydrophobia. She tried to drink some milk, but was unable to do so, though she made several attempts. She was very talkative during the whole of the succeeding night and day, and was seized with convulsive spasms at the sight of water and whenever a breath of air played over her face. In the evening her mother carried her in her arms to the infirmary, turning away her face in so doing, as she found that if she breathed on her the child became violently convulsed. On questioning the mother, it was ascertained that she had kept a dog, with which the girl often played, till six weeks before, when it became savage and fretful, and finally ran away and had not been heard of since. At about the same time the girl had several cuts on her fingers.

On admission she was found to be a pale, wild-looking girl, with a peculiar frightened expression of countenance, dilated pupils, a pulse of 130, and temperature of 99·8°. She complained much of pain in the back, and of having hairs in her mouth, which she continually attempted to take out, clawing away with her fingers thick viscid saliva. The tongue was dry, and red both in the centre and at the edges, but thickly coated with a white fur between the centre and edges. Feeling thirsty, she asked for some milk, and with a great effort swallowed a teaspoonful, but was unable to take more, and prayed that it might be taken away. She also swallowed a sop of bread soaked in milk. The slightest breath of air brought on a violent spasm, which threw back her head and fixed her chest. Sometimes the mention of water, or of any liquid, brought on a similar convulsion. She was ordered one-eighth of a grain of morphia hypodermically injected, and became somewhat quieter. Later she asked for wine, but when it was brought she was unable to take it. She then asked to have it placed by her bedside, and when she thought she was not observed she was able to take a small quantity; but soon after, while again trying to drink it, she was seized with a violent convulsion, which threw her completely out of bed. She dozed at intervals during the night, and the next morning was in much the same condition, but talked more, and less rationally. She fancied that she was at home, at work, &c. Some sops were given to her, which she swallowed with greater difficulty than on the preceding night. An enema of beef-tea and brandy was administered. By the evening her rapid talking had become a continuous and incoherent gabble; she imagined she saw her friends about her, and addressed them by name. At 8.30 P.M., Mr. Jessop dissected down on to the median basilic vein, and injected in it, with a hypodermic syringe, fifty minims of a solution of the liquor ammoniæ fortis (1 in 3). This caused her to squint, and to perspire freely, but had no perceptible effect on the pulse or on the general symptoms. She died at midnight (forty-six hours after the appearance of first distinct symptoms), having talked incessantly for six hours. The immediate cause of death was asphyxia, due to an accumulation of saliva, of which she had secreted large quantities, which, pouring over her chin, had moistened the bedclothes.

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DEATH FROM CHLOROFORM. — At the Swansea Hospital a few days ago, a clog-maker named Barrett died under the influence of chloroform. Three weeks ago he fractured his leg, and, amputation being considered necessary, the preparations were made with his consent. Before the operation commenced, and while inhaling the chloroform, he died.

# Medical Societies.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 14TH, 1871.

DR. BURDON-SANDERSON, IN THE CHAIR.

DR. BROADBENT read a paper "On Phosphorus as a remedy in Skin Diseases," in continuation of a series of cases published in vol ii. of the Society's Transactions, in which manganese and nickel were given as remedies for anæmia. If the action of remedies and poisons on the human organism is due to their chemical properties, substances allied chemically ought to have an analogous physiological and therapeutical influence, or the diversity in their action ought to be explicable on chemical grounds. In other words, chemical groups should form therapeutical groups. The investigation suggested by these considerations is as follows:—Given a distinct and well-ascertained physiological or therapeutical effect, can results in any way similar be obtained from the chemical allies of the body producing it? The group of which phosphorus is the head chemically, and of which arsenic is the chief representative in therapeutics, affords an opportunity for the application of this test. Its four members, phosphorus, arsenic, antimony, and bismuth, stand in the order named in regard to equivalent numbers, physical properties, and chemical energy; and their compounds with other elementary bodies form analogous series. Excluding bismuth, which, from its feeble affinities and tendency to form insoluble compounds, may be considered inert, there is in the mode of action of phosphorus, arsenic, and antimony, as poisons, and in the tissue-changes they induce, a parallelism as remarkable as that of the chemical properties of these bodies, both in the energy and in the character of the physiological effects. The opportunity for bringing out further therapeutical parallelism is furnished by the well-known curative action of arsenic in certain classes of skin disease, such as some forms of eczema and psoriasis. Cases of this kind were taken, and, instead of arsenic, phosphorus was given. Two grains of this substance were dissolved in oil, and from three to seven drops of the solution were given, usually in mucilage, three times a day after meals. Six cases of eczema were related, in all but one of which the phosphorus was decidedly beneficial. The most striking case was that of a girl aged twelve years, who had had eczema of the scalp, extending down upon the forehead and face, for three months. She took first four, and afterwards five minims of the phosphorated oil for three months without any external application, when it was discontinued on account of sickness, the eruption having almost disappeared. Three weeks later it was resumed, and after a fortnight all that remained was slight redness and scurfiness of the scalp. With the aid of creasote and red oxide of mercury ointment the skin ultimately became healthy. The cases of psoriasis were also six in number, two out of which proved rebellious, not only to phosphorus however, but to arsenic, and all treatment, general and local. In one case, that of a man aged twenty-two, psoriasis had been present more or less from the age of four or five; the patches were large and numerous, and had an inveterate look. He took the solution of phosphorus in doses of from five to eight drops. On two occasions the psoriasis completely disappeared without the use of any local application, and a third time with the aid of creasote and ammonio-chloride of mercury ointment; but his attendance was irregular, and during the twenty-one months that he was more or less under observation he contracted first gonorrhœa and then syphilis (aphrodisia from phosphorus?), and he ceased to attend at the hospital while the evolution of cutaneous syphilis in a "dartrous" subject was being watched. The object of the communication was not to bring forward a new remedy for skin diseases, but to exhibit one more analogy between phosphorus and arsenic. If phosphorus, however, were as manageable and as little disagreeable as arsenic, it would probably, according to Dr. Broadbent's experience, be found superior in efficacy.

DR. ALTHAUS remarked that phosphorus was best given in the form of a pill, that from one-fortieth to one-fourth of a grain could be taken without difficulty, and that, according to his experience, the medicine may be given with other drugs without any objectionable results.

DR. LANGDON DOWN thought that, in order to test the remedy fairly, parallel oxides to those of arsenic should be prescribed.

DR. WILTSHIRE asked if Dr. Broadbent had tried the amorphous preparation of phosphorus.

DR. FREDERICK SIMMS recorded his belief in the beneficial effects of phosphate of iron in combination with arsenic.

DR. BROADBENT, in reply, said that the notes read were intended to refer exclusively to the treatment of cutaneous diseases; that antimony often did good; that combinations of oxygen and phosphorus rendered the latter inert; that he had given amorphous phosphorus in two or three grain doses, but had found it useless.

DR. FREDERICK SIMMS read notes of a case of left hemiplegia with total loss of the right eye. Mary S——, thirty-one years of age, was admitted into the West London Hospital on September 12th, 1870. No history of syphilis or of any acute illness. Has had several healthy children. On February 19th, 1870, after a short railway journey, labour came on at full time, with severe flooding, and ended in four hours by the delivery of a still-born child. An hour after the patient was unconscious, having previously had severe pain in the right side of her head. Recovery ensued after some hours, and was followed by acute aching pains in the left arm and leg, both of which she was able to move for at least an hour after the return to consciousness, when they became perfectly paralysed. Gradual and permanent rigidity supervened, with startings and involuntary movements of flexion and extension, so that the hand became bent upon the limb and could not be kept extended. Memory was much impaired. Three days after delivery active inflammation of the eye set in, resulting in total blindness. The speech was never much affected. She now has the ordinary symptoms of hemiplegia, is able to walk with some little help, uses the muscles of the thigh to lift and advance the leg, the ankle-joint being fixed and immovable. There is headache on vertex and right side. Sensation of palsied limbs normal. No pain in the diseased eye. General health good. No albumen in the urine. Heart sound. Mr. Fairlie Clarke reports that the diseased eye is quite lost, the globe being shrunken and very soft, the lens opaque, and the pupil drawn downwards as if involved in an ulcer of the cornea. No active inflammation is going on at present. Improvement was confined to increased power over lower limb, disappearance of headache, and to a gain in general health and condition. The patient was able to walk without help, but the foot was drawn up by the tendo Achillis. The treatment consisted of iron, iodide of potassium, and good diet. The head symptoms disappeared under the use of bromide of potassium and iron in combination. Faradisation of the affected limbs was tried repeatedly, and as often discontinued as the head symptoms increased, when the feeblest current was used. The illness was attributed to embolon, a clot having formed in the left heart directly after the termination of labour, and travelled upwards as far in the internal carotid artery as the origin of its ophthalmic branch. The loss of consciousness was the immediate cause of this obstruction, and the subsequent symptoms were due to red softening of brain-substance and to cicatrisation.

DR. BUZZARD inquired if sensibility of the right side of the face was affected, and remarked that any interference with the fifth nerve is liable to result in ulceration of the cornea.

DR. BROADBENT thought that recovery in cases of embolism of the cerebral artery was rare, that the loss of the eye might have been the result of ulceration of the cornea from exhaustion, and that the rigidity of the paralysed parts was not a common occurrence.

MR. BRUDENELL CARTER thought the condition of the eye pointed to the results of some profound nervous or vascular lesion, and not at all to ulceration of the cornea from exhaustion consequent on loss of blood. In the latter case staphyloma and increased tension would have been more probable than softening.

DR. SIMMS replied briefly. He feared that his patient would drag on a miserable existence for some time, and opined that the clot which was probably causing the mischief had travelled up to, and become lodged at, the

junction of the internal carotid with the middle cerebral artery.

Dr. BUZZARD read a paper, for Dr. ROYSTON FAIRBANK, of Lynton, "On the Use of Digitalis as a Topical Remedy." The mode of application of digitalis adopted was to make a decoction of the dried leaves in the proportion of a small teaspoonful to half a pint of boiling water, or a drachm of the tincture might be used in the place of the leaves. Flannels wrung out in the decoction were applied around the inflamed parts in the usual way. Another mode of applying the drug was to foment the part affected with hot water, and afterwards to rub in gently a little of the tincture. Dr. Fairbank had used with great success these local applications of digitalis to cases of acute inflammation of the elbow- and knee-joints, and also to a patient suffering from severe inflammation of the breast.

Dr. BUZZARD also read a paper, by Mr. LAWSON TAIT, "On a case of Encephaloid Cancer of the Femur treated by Electrolysis." The patient was a female, aged thirty, who suffered from encephaloid disease of the right femur. Subcutaneous injections of morphia, in quantities of twenty and twenty-four grains, were necessary to relieve her terrible agonies. Hydrate of chloral was also given in doses of from sixty to one hundred grains, but it was found that, unless combined with morphia, or with the administration of chloroform, it failed to induce freedom from pain. Mr. Lawson Tait remarked that the chloral hydrate was an excellent adjuvant to opium and chloroform. In this patient a much smaller dose of chloral was required if morphia had been previously given, and a smaller dose of chloroform was needed to produce anæsthesia if the patient were already under the influence of chloral. Ultimately he tried the effect of electrolysis on the tumour; he inserted (under chloroform) six needles into the tumour, and applied the current for ten minutes, and three days afterwards he repeated the operation for fifteen minutes. The result of these operations was to give the patient great immunity from suffering. Mr. Lawson Tait remarked that had the electrolytic treatment been applied earlier, he was certain it would have saved much pain.

Mr. BRUDENELL CARTER thought that in cases such as that described it was well worthy of consideration whether the division of the nerve would not have been a proper proceeding to relieve the excruciating pain.

Dr. ALTHAUS, in reply to Mr. Thomas Smith, said that in fourteen cases treated by electrolysis the tumours, whatever they might have been, disappeared, but that the two most decidedly successful cases were those of cancer of the breast.

Dr. FREDERICK SIMMS made some remarks, and the Society adjourned.

# Reviews and Notices of Books.

*The Geographical Distribution of Heart Disease and Dropsy in England and Wales.* Illustrated by a large Coloured Map. By ALFRED HAVILAND, M.R.C.S. Eng., Lecturer on the Geography of Disease in England and Wales at St. Thomas's Hospital, &c. London: W. & A. K. Johnston, Strand. 1871.

THE author of this map and accompanying letterpress has evidently been at great pains, and no little expense, in their production. His design is to indicate the geographical distribution of heart disease and dropsy in England and Wales, and the conclusion at which he has arrived is, "that the great majority of heart disease cases in our country have their origin in rheumatism, and that this disease in many parts of England is endemic." He thinks "that the coincident phenomena point to some *materies morbi*, resident in certain localities, perhaps in all; the only difference being that one district is frequently purged by the beneficial influence of the sea-winds, whereas another is sheltered so as to admit of an accumulation. This accumulated air-sewage may have either an animal or a vegetable origin, or both; it is impossible to say. All that we know is, that it is coincident with excess of rheumatism and excess of mortality from heart disease. What we see obtain in the deep, unventilated valley districts of Devon, Dorset, Hants, and Hereford, we find in towns where a free flushing of the air-sewage is precluded by the natural position of the town itself; or, if well situated for air flushing, by the bad arrangement of the streets, which are so built as to intercept what otherwise would thoroughly ventilate them, and either chemically or physically rid them of the disease poison." Our author distinguishes between the force, or dynamical element, of wind and its chemical qualities, which involve its purity or impurity.

We have no doubt whatever that the author of this map has bestowed much labour in its production, combined with perfectly honest intentions in working out his results; but we confess we have a considerable degree of doubt in regard to their accuracy, or rather perhaps as to the possibility of defining the relative prevalence of such diseases as those of the heart in different given geographical areas. Where the disturbing causes and sources of error are so numerous, it appears to us that the premises resemble quicksands—you can have no certain foothold. Allowing that heart disease depends upon rheumatism for its production far more than upon any other single cause, it must still be confessed that rheumatism is by no means the only cause; indeed, many forms of cardiac disease, and especially those, for example, referable to the aorta itself, or its valves, are attributable to causes of a mechanical kind, such as occur among soldiers, labourers, blacksmiths, and others, or are manifested with an increased frequency at certain periods of life. The atheromatous and other similar diseased processes—whether they are to be regarded as degenerative or inflammatory in their character or not—can scarcely, we suspect, be traced back to the operation of such external conditions as would have induced acute rheumatism or engendered the rheumatic diathesis. It is also to be remembered that the population within the various geographical limits assigned in the map is not a fixed, but a variable quantity, and, to some though an uncertain extent, emigratory in its character. It would, of course, take a great deal of consideration to hit upon the most prominent source of error in the tables, supposing such to exist, or to indicate those of minor importance, which might affect the result; but the occurrence of the maximum prevalence of heart affections in certain localities—indicated in the map by the dark-blue shading—even if based upon sound statistical data, may be capable of receiving some other explanation than that given by our author. For example, to draw a bow at a venture, we might suppose that the blue spots about Norwich and Bury St. Edmunds may be explained by those being the positions of the county hospitals, where, possibly, there would be a larger ratio of cases of death from heart disease than in the surrounding rural populations. But we do not wish to criticise and cavil for the sake of fault-finding. Mr. Haviland has, we may fairly suppose, done his best to present us with trustworthy deductions; our only doubt is, whether he, or anyone else, could make these reliable, or, at most, more than approximatively so, by any amount of care.

*What is Malaria? and why is it most intense in Hot Climates?* An Inquiry into the Nature and Cause of the so-called Marsh Poison; with Remarks on the Principles to be observed for the Preservation of Health in Tropical Climates and Malarious Districts. By C. F. OLDHAM, M.R.C.P., M.R.C.S., H.M. Indian Forces, late in Medical Charge of the Dalhousie Sanitarium. 8vo, pp. 186. London: H. K. Lewis. 1871.

THE author of this work, after having mastered the literature of his subject and given it a good deal of reflection, has arrived at conclusions that are entirely op-

posed to what is the current teaching as to the nature of malaria. "Brought face to face with endemic malarious disease in all its forms," says Mr. Oldham, "I found it impossible, under any of the usually accepted theories, to account satisfactorily for many of the phenomena attending its production. I set myself, therefore, to find out something definite as to its nature and origin. After much careful inquiry, I arrived at the conclusion that malaria, as a specific poison, does not exist. Further, I became convinced that the diseases usually attributed to 'malarious influence' are caused by chill, or, in other words, by the sudden abstraction of heat; and the more closely the circumstances connected with the development of these disorders were inquired into, the more firmly did this conviction become established."

Of course, in the limited space at our disposal, it is impossible to enter into a critical examination of the value to be attached to the facts and arguments adduced by the author in support of his views. He has evidently been at great pains to collect and arrange his information. While we give him credit for the scientific spirit in which he has conducted his inquiry, we are bound to state that he has not by any means satisfied us as to the correctness of his conclusions. The effects of a "chill" may in some degree mimic those of malaria, or render the latter active; but a great many difficulties must be overcome before we can adopt a "malarious influence" and a "chill" as conterminous expressions. Whether it be correct to speak of malaria as a "poison" we do not pretend to say. Mr. Oldham, so long as he is destructive in his views, advances much that is forcible; but he appears to us to fail when he commences the constructive part of his theory. As far as our inquiries extend, we should say that patients have again and again contracted malarious fever who have not been aware of having suffered from, or been exposed to, any chill; and the converse is likewise true, that persons residing in hot climates have been so exposed without having contracted ague. Although recurrent attacks of fever constantly arise from exposure to cold, the paroxysms will often recur without any obvious cause whatever. Why should New Zealand be free from malaria? There is plenty of undrained, uncultivated soil, of moisture, and a considerable thermometrical range; and yet the fact is that troops actually lost in that country the symptoms of the ague they had contracted in India, although, during the New Zealand war, they bivouacked and slept on the ground with no other protection from the soil beneath them than what was afforded by ferns they had cut down to serve them as bedding.

Dr. Alexander Smith tells us, in a Sanitary Report just published, that "in the middle of the year 1869 several working parties, composed chiefly of men who had been the most debilitated by service in the plains, were employed in road-making in various parts of the hills, but chiefly near Murree and Dalhousie, at elevations varying from six thousand to eight thousand feet above the sea level. They were often much exposed to wet and stormy weather, and frequently found it difficult to keep even their bedding dry, owing to leakage from the roofs of the huts in which they lived. But, with the exception, perhaps, of those of the 25th Regiment, who were in a very low state of health from fevers which had been very prevalent among them previous to their leaving the plains, and who after arrival in the hills suffered much from ague, the men of the working parties generally improved greatly in health and condition, notwithstanding these disadvantages. It was remarked also that, on their rejoining their corps, the men of the working parties in a great measure escaped the agues from which their comrades who had remained in the plains were, in most parts of the Punjab, suffering when the former returned to cantonments."

Then, again, how are we to explain the very diverse effects of localities even bordering on one another? Planters living at Ootacamund on descending to the plains take large quantities of quinine for consumption during their visit. In 1843 almost all the soldiers and officers who went to Scinde contracted intermittent fever, which commonly induced or was followed by dysentery; while intermittent in other places is attended or followed by splenic enlargement. Besides the chronometry, which forms so wonderful a feature in this disease, we must not forget that the aguish cause, be it what it may, gives rise to numerous forms of nerve pain, to functional and even structural disorders of the internal organs, and to peculiar morbid changes in the tissues, all of which scarcely seem to us explicable on the hypothesis put forward by Mr. Oldham. If the account be correct, moreover, of an occurrence that took place several years ago—and it formed the subject of investigation by the French Government, if we remember aright—of the effect of some water, taken from a marsh, on the troops aboard a ship bound for a port in France, in inducing malarious fever in all who partook of it, there does not seem much room for doubt that there was suspended or dissolved in the water a "something" that caused the diseases under which the men suffered. The effect of the occupation of upper-storied barracks and of the upper rooms of a house in protecting against malaria, does not seem easily explained on the "chill" hypothesis.

## THE NAVAL MEDICAL SERVICE OF THE UNITED STATES.

IT will interest our naval brethren to know that the medical branch of the United States navy is to be reorganised under a statute of the Senate and Congress. The main features of the change will be as follows:—The chief of the department is to hold office for four years, with the same compensation as other chiefs of bureaux of the navy. The staff under him is to consist of—

| Medical Officers. | | With the rank, pay, and emoluments of— |
|---|---|---|
| 12 | Medical Director-Generals ... | Commodore. |
| 18 | Medical Inspector-Generals ... | Captain. |
| 20 | Medical Directors ... ... | Commander. |
| 30 | Surgeons ... ... ... ... | Lieut.-Commander. |
| 120 | Assistant-Surgeons: passed, and with three years' service | Lieutenant. |
| | Assistant-Surgeons: unpassed, or under three years' service | Master. |

Promotion from grade to grade to be "in the order of official seniority."

No officer on this staff can exercise any command or authority, by virtue of his rank, except over the medical staff, or those placed under the control of the medical department.

The principal medical officer *in loco* is to arrange the medical duties, and to detail the medical officers to those duties, under approval of the officer in command; he is to have sanitary surveillance of the officers and men, and the inspection of the medical department of each vessel and of all temporary camps and hospitals within the command, and to be responsible for the due supply of medical stores. In all ships and hospitals the inferior medical duties are to be performed by "medical cadets," who have passed "an examination in all the duties of apothecaries and dispensers," with the rank, pay, and emoluments of midshipman; these, after two years' service at sea, or four years' ashore, are to be admissible with other candidates to the competitive examinations for assistant-surgeon. Medical officers when retired or reserved (on half-pay), are to have the same rank as medical officers of the same date of commission on the

active list, and the same pay and emoluments as retired or reserved officers of the line of equal rank.

These are the main features of the statute, and, as the Act was drawn up by the medical staff, we have confidence of its being adapted to the professional state on that side of the Atlantic. One great difference from ourselves is marked—viz., that the law admits with us of the employment of none but registered practitioners, but this not being so in the United States, an inferior medical staff of "cadets" is there allowed to be created, who will probably not continue in the service, but who, by performing the subordinate medical duties, will take pressure off the upper grades. To effect the same thing legally in our navy, it has been proposed by Dr. Brown to grant a temporary commuted half-pay to young medical officers after ten years' service.

It is evident that in both navies the dearth of qualified candidates is much felt, and it would seem that the causes are alike in both—dissatisfaction with the naval atmosphere, wherein one race of officers alone develops to perfection and enjoys social health. A prominent cause of this appears to be, that among the Anglo-Saxon Sea-kings there is a long-cherished traditional policy of repression of medical men, by linking all so-called civilian officers in one category, as if entitled to the same amount of consideration, whatever their calling. The mainspring of this incongruity is, however, the mistaken notion that *rank* and *command* are convertible and inseparable, while one is a property and the other a function. This phantasm has kept the military services in commotion from the early part of this century. In the armies of both nations it is extinct, and when in ours purchase can no longer influence position and career, professional merit of every kind will find its level, and our Larreys will stand at the right hand of the highest authority. In our navy the phantasm was dissipated twelve years ago; but the natural results, the equalisation of emoluments of office, and the other rewards of service for equality of ranks, on which we have to congratulate our friends in the United States navy, have not been fixed, as with them, by an Act of Parliament.

We heartily congratulate the profession in the States, but knowing that the interpretation of the law still rests with those who may feel aggrieved at their defeat, we could wish that identical terms had been employed in the army and navy statutes to secure the same rank in each, as that would have precluded the temptation to conceive that the Legislature had purposely left room for different constructions of social rank in the sister services. We say this from knowledge of the discord concerning the complements of rank that has reduced our naval service to its present inefficiency, notwithstanding many excellent palliative measures, and we would advise the U.S. naval authorities to be forewarned by our experience, and to avoid falling into the same position.

## CHOLERA IN RUSSIA.

NEWS from St. Petersburg, dated the 5th instant, state that while the outbreak of cholera has diminished in intensity of prevalence in that capital, the disease has appeared in other parts of the empire. Several cases had occurred in Moscow (the dates not being given), and scattered instances had taken place at different localities along the lines of railway communicating with St. Petersburg. On March 16th an officer died from the epidemic at Cronstadt, who had recently arrived in that town from St. Petersburg, and four other cases had subsequently occurred. On the 25th March eight cases and two deaths were reported among conscripts who had travelled by the Nicholas line of railway (from St. Petersburg?) to Zaretchie and Vyschni-Volotchok on the 18th. One of the deaths took place at the former place, and the other at the latter; and four conscripts died of the epidemic in the military hospital at Tver. On the 25th also a conscript was seized with rapidly fatal cholera at Pskow, where he had arrived from St. Petersburg on the 18th. On the 1st April the Governor of Novogorod reported that six cases of cholera had occurred, two of which had proved fatal, at the railway stations of Lioubane and Verebia; and that, to meet the contingency of cases taking place in railway stations, measures had been adopted for the immediate establishment at the Lioubane, Malaia-Vischera, Okoulooka, and Bologoé stations, on the Nicholas railway, of ambulances, each with six beds, and having a physician and assistant attached.

It is not stated in the reports whether the whole of the cases occurred among the conscripts journeying from St. Petersburg, or, indeed, among persons who had recently left that city; and no connexion is intimated between the outbreak in Moscow and that in the first mentioned city.

The further reports from St. Petersburg confirm previous statements of the epidemic there having chiefly prevailed among the working and indigent classes who at the time were suffering from unwholesome food; and arrangements had been made for the daily distribution of provisions of good quality at a low price. The distributions were to commence on April 9th, from nine of the police stations; but the number of distributions was to be limited—namely, at three of the stations to 100 persons, at one to 80, and the remainder to 60 persons. The distributions were to consist of a portion of soup, half a pound of meat, half a pound of groats with butter (*gruau au beurre*), and two pounds of rye-bread, the whole at a cost of ten copecs. Orders to receive a distribution at the price stated are to be issued from the police-stations; the whole regulation of the measures, medical and otherwise, for the control of the epidemic, being made part of the duty of the police of the city.

The following are the official returns of the progress of the epidemic in St. Petersburg from the 21st of March to 2nd of April:—

| | Cases under Treatment. | New Cases. | Recoveries. | Deaths. |
|---|---|---|---|---|
| March 20th | 283 | 114 | 6 | 44 |
| „ 22nd | 347 | 107 | 7 | 40 |
| „ 23rd | 407 | 144 | 9 | 40 |
| „ 24th | 502 | 157 | 9 | 43 |
| „ 25th | 607 | 142 | 15 | 39 |
| „ 27th | 772 | 144 | 23 | 65 |
| „ 28th | 828 | 122 | 34 | 43 |
| „ 29th | 873 | 157 | 66 | 45 |
| „ 30th | 919 | 125 | 71 | 38 |
| „ 31st | 935 | 130 | 59 | 48 |
| April 1st | 958 | 90 | 45 | 46 |
| „ 2nd | 952 | 64 | 59 | 48 |

The total number of cases of cholera, recoveries, and deaths from the commencement of the epidemic in St. Petersburg on the 29th of August, 1870, to the 3rd of April, 1871, is as follows:—

| | Males. | Females. | Total. |
|---|---|---|---|
| Cases | 2490 | 1284 | 3774 |
| Recoveries. | 892 | 454 | 1346 |
| Deaths | 1020 | 477 | 1497 |

# New Invention.

## YOUNG'S PATENT POISON CABINET.

THIS is one of the simplest, most ingenious, and best contrivances we have seen for some time. It is designed for the safe storage and dispensing of poisons; in fact, if the cabinet comes into general use it ought practically to put an end to all cases of accidental poisoning arising through the dispensing of the wrong article. Each bottle is kept securely fastened in its place, and can only be removed by adjusting an indicator which slides easily under the front edge of the shelf to a point labelled the same as the bottle required. For instance, should "strychnia" be required, we have only to slide the index to the point bearing that label on the edge of the shelf (not directly under the strychnia bottle) to liberate the vessel containing that drug, the other bottles remaining fast and incapable of being removed. The arrangement, moreover, is such that, although the bottles on each shelf are of the same size and shape (ordinary bottles), it is impossible to place any one of them on any part of the shelf except that assigned to it.

# THE LANCET.

LONDON: SATURDAY, APRIL 22, 1871.

As mentioned in the last issue of THE LANCET, we have now received the printed copy of Mr. BRADY'S Medical Bill, and we have, it is almost needless to say, given to its various provisions our most careful and earnest consideration.

Mr. BRADY proposes to leave the present eighteen delegates of the corporations in the Medical Council, to cut down the nominees of the Crown from six to three in number, and to add five direct representatives of the medical profession. In this way he would obtain a Council of twenty-six members, instead of twenty-four, as at present.

He next imposes upon the existing medical authorities of each division of the kingdom the duty of submitting to the General Council a scheme for the construction of an examining board for that division; and the General Council will then be called upon to approve such scheme (with or without alterations made with the consent of the said medical authorities) and to propose it to the Privy Council. If no such scheme has been submitted, or if confirmation by the Privy Council has been refused, then the duty of framing a new scheme will devolve upon the General Council itself. Every scheme shall provide for the constitution and mode of operation of the board, and for the entrance into it of representatives of the other boards. The boards thus constituted shall give a licence in medicine, surgery, and midwifery, which shall constitute the sole title to entrance upon the Register; but the authorities will still be at liberty to confer their various diplomas or degrees, either before or after the single examination has been passed. In the former case, the persons so distinguished will be unable to register until they have obtained the Council licence.

Now, with every disposition to regard Mr. BRADY'S scheme with very favourable eyes, we are nevertheless compelled to say that it does not meet the demands of the public or the necessities of the case with which Parliament is called upon to deal. The weakness of the present Medical Council is twofold, and resides first in its numbers and next in its composition. An efficient executive body must be too small to waste time in talking; and an efficient deliberative body must be large enough to fall naturally under the sway of party leaders. Unless it is so guided, each member is speaking and acting for his own hand, and the resulting combinations are as shifting as those of the kaleidoscope. Such has hitherto always been the case in the Council of twenty-four, as all those whose evil fates have led them into its meeting-room can entirely vouch. It would be impossible for the addition of two members to have any appreciable influence upon the unstinted verbiage and the unceasing wrangle that have hitherto been the chief characteristics of the august assembly.

Then, with regard to composition; the Bill would only transform the present minority of six independent members into a minority of eight—as powerless as now against the eighteen corporation delegates, who, it must be remembered, would come to the Council table pledged beforehand to resist every suggestion by which their respective corporations would be controlled, or might be injured in a pecuniary sense. The purity of the corporations which have been immaculate would then furnish a tower of defence for those which have been corrupt. It would be argued that no control should be exerted over this University, because its examinations had always been above suspicion; and hence that none should be exerted over that College, because the University was to pursue its own career. An independent Council, on the contrary, would use its influence to make the immaculate corporation yield gracefully to restrictions that were designed to be for the public good.

When we proceed further, and arrive at the suggestion that the medical authorities of each division of the kingdom should prepare an examination scheme, it would almost appear that the recent abortive effort at amalgamation had been made in order to show how this provision would be likely to work. That effort proved, not to speak of the Universities, that the interests of the London Colleges and of the Apothecaries' Company could be only reconciled by concessions to the latter such as no one conversant with the necessities of the time could approve; and yet it would be too much to ask any corporation to go into debate for the mere purpose of signing the warrant for its own extinction. The only probable result of a meeting of authorities would be the proposal of a scheme which the Privy Council could not, or at least ought not to confirm. If they did confirm it, no good would follow; and if they refused to confirm it, the task of framing another would be virtually cast upon the same persons by the refusal. The Council would be meeting and talking, meeting and talking, spending thousands upon thousands of pounds, and arriving at no conclusion. In the end the Medical Officer of the Privy Council would virtually frame a scheme, by stating what provisions he would advise my Lords to accept; and so, after all, Mr. SIMON would be installed as a dictator in everything relating to medical education. The principle of direct representation, tried unfairly, would be said to have broken down in practice; and the profession, weak and disunited as before, would still be unable to furnish any central body to which either the Government or the public could look up with respect.

In framing THE LANCET Bill, the various provisions now put forward by Mr. BRADY were more than once under discussion, and were always rejected. We felt that the faults of medical education were not in individuals, but in the system; and that a complete change of system was essential to any useful measure of reform. For us, as for others, there are kindly thoughts of the corporations with which we are affiliated; but there is none the less a deeply rooted conviction that the individual representation of corporations must cease, and that these bodies must for the future be controlled instead of controlling. We hold Mr. BRADY in high honour as a painstaking and thoroughly sincere reformer; but we cannot accept his Bill as more than a pal-

listive for the evils of which we complain. These evils are in some degree apparent to all; but a knowledge of their full extent is almost limited to medical journalists.

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IN the last number of *Macmillan's Magazine* there is an account of the Belgian ecstatic, LOUISE LATEAU, which is not only of considerable interest in itself, but derives additional importance from being the work of Dr. GEORGE DAY, well known as a former Emeritus Professor of Medicine at St. Andrews. We gather that Dr. DAY has not himself seen the subject of his description, and that his paper is based entirely upon the more detailed account already given by Dr. LEFEBVRE of Louvain,* from which he quotes largely. It seems to us that neither Dr. LEFEBVRE nor Dr. DAY does full justice to the medical and physiological aspects of the question; and that they both appeal somewhat more to the popular appetite for marvels than is required either by the facts of the case or by the state of science. We cannot but regard this appetite as an unwholesome one, and will therefore strive to point out the place which the events described seem to us to be entitled to hold.

The history related by Dr. DAY is so accessible that we need not quote it, or do more than present its mere outline to our readers. LOUISE LATEAU is a Belgian peasant girl, of ordinary intelligence and of good character, who suffered from severe illness at the age of eighteen. On April 16th, 1868, she was so exhausted that she thought she was dying, and received the sacrament. From that day she rapidly improved; and her restoration to health became complete.

On the 24th of April, being Friday, she observed a discharge of blood from the left side of the chest; and on the following Friday this discharge again appeared, and also from the upper surface of each foot. On the third Friday blood began to ooze during the night from the left side and both feet, and by nine o'clock it also flowed from the palms and backs of both hands. Finally, on the 28th of September, the forehead also became moist with blood; and these bleedings have continued every Friday up to last January, the date of the latest report. On the 17th of July the phenomena of ecstasy were added to those of the stigmata; and since that time the girl has spent many hours of every Friday in a state of complete abstraction from the external world. During these periods she is insensitive to pain or outward impressions; and is engaged in seeing, as if in a dream, the whole drama of the Crucifixion. Dr. DAY prefaces a narrative of which this is the substance by saying that he is about to relate a story of a "startling character"; and that "some of the incidents occurring in it are so incredible, and apparently so opposed to the ordinary laws of nature," that he appeals for special examination of the data on which it rests before it is rejected as being unworthy of credit. Dr. LEFEBVRE, also, says that "the laws of pathological physiology do not suffice to explain the production of the phenomena"; and he enters into great detail about the elaborate and, as it seems to us, rather cruel and very unnecessary tests which have been applied in order to establish the authenticity of the narrative.

We cannot, of course, tell exactly what Dr. DAY means by the "laws of nature," or Dr. LEFEBVRE by the "laws of pathological physiology"; and there is certainly one sense in which it may be declared that we cannot "explain" any vital phenomena whatever. But we must enter a very decided protest against the idea that the case of LOUISE LATEAU is so anomalous as its historians represent; or that it is in any sense incredible, or beyond the limits of recorded medical experience.

The occurrence of hæmorrhagic exudation without surface lesion is a matter by no means new in the history of medicine; and many cases of it have been related by different writers. In one of the most recent, the hæmorrhage took place from the conjunctiva, near the caruncle, and recurred frequently at uncertain intervals. In others, various parts of the skin have furnished the blood; and the only thing remarkable about the bleeding in the present instance is the periodicity of its occurrence—a feature that opens up an entirely new set of considerations.

Many years have now passed away since the attention of physiologists was actively directed towards the various states of nervous system that were produced by disease, under the names of somnambulism and hysteria, and by artificial means, under the names of mesmerism and electro-biology. The consequent investigation was carried much beyond the phenomena with which everybody was at the time familiar; and led, among other things, to the careful enunciation by Dr. CARPENTER of the effects of automatic attention upon the human body. Dr. CARPENTER clearly showed that all manner of nervous and vascular changes could be wrought by the direction of mental attention upon the parts concerned; and, although it is impossible to "explain" these changes, yet the recent advances in knowledge with regard to the way in which the circulation is controlled by the nervous system render it easy for us to perceive the channel through which they may be produced. Even by the imperfect attention that can be commanded by the will it is easy to excite or to check secretion, to call up sensations in healthy parts of which we are ordinarily unconscious, or to modify the state of the circulation in them; and in the more complete form of attention that is automatic, engrossing, and complete, much more extensive changes may occur. The performance at an ordinary lecture on electro-biology will at once furnish familiar illustrations of such events; and it is well known that the imaginary cold experienced by good subjects has more than once proceeded to the formation of actual chilblains. Still better but less familiar illustrations are furnished by disease; and one case is on record* in which severe injury to the fingers of a child was followed by inflammation and sloughing of corresponding parts of the fingers of the mother. The general law is quite clear, that the direction of attention upon any part or parts of the body may be followed by all manner of nervous and vascular changes; that this attention, in order to be effectual, must be automatic and complete; and that it most readily becomes so in uneducated persons, who have never gained from mental training the power to control the operations of the mind.

Viewed in such a light as this, the history of LOUISE LATEAU is sufficiently simple. A pious and good girl, of a

* Louise Lateau de Bois d'Haine; sa Vie, ses Extases, ses Stigmates. Etude Médicale. Louvain, 1870.

* Carter on the Pathology and Treatment of Hysteria.

reserved (i. e., introspective and contemplative) temperament, she was familiar with the details of the Passion from the crucifixes and pictures which form so large a part of the apparatus of Roman Catholicism. The supposed approach of death had served to fix her thoughts upon sacred things, and her unexpected recovery only strengthened and deepened her religious impressions. With these, in her little world, there was nothing else to contend; and her meditations on the crucifixion, actively excited by the Friday, at last culminated in the flow of blood corresponding to that from the wounded side. Such an effect, once produced, and, as the narrative shows, brooded over for an entire week in silence, was naturally enough followed by the appearance of the other stigmata. The faculty of attention, growing and strengthening by use, soon attained the power of engrossing the whole force of the nervous centres, and the condition of ecstasy became developed. Such cases are in no way extraordinary; and they are only unusual because the events of life so seldom leave any one set of feelings in the necessary predominance. Time, and occupation, and the various cares and duties of the home circle, furnish the best remedies for ecstasy and analogous conditions; and these should not, as a rule, be encouraged, because they are capable of being turned to evil account by the ignorant, the credulous, and the superstitious.

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ONE thing at least came very clearly to the surface in the discussion concerning the epidemic of relapsing fever at the last meeting of the Epidemiological Society—namely, the necessity for a registration of disease, if at any time the central Government is to exercise proper systematic supervision, and local governments systematic control, over the dissemination of spreading diseases. Dr. BUCHANAN, in his account of the beginning and progress of the epidemic in London, could not suggest any more probable origin than the possible introduction of the disease from the continent. It had been ascertained that the epidemic was prevalent in East Prussia and Berlin; and it is also known to have been present in St. Petersburg, before the earliest cases were recognised in London. Amongst these earliest cases were several Polish Jews. But Inspector-General LAWSON mentioned, as militating against this theory of introduction, that deaths from relapsing fever had been recorded in the monthly returns of the mortality of the principal towns of Scotland every year from 1865 to 1868 inclusive. Mr. NETTEN RADCLIFFE gave a brief account of the outbreak of relapsing fever at Tredegar. This outbreak began in October, 1868, and extended over twelve months. Within this period there came under the care of the medical staff of the Tredegar Iron Company's works at least twelve hundred cases, of which forty-seven died. Not a whisper of this remarkable outbreak had reached the outer world, and the fact of its occurrence was discovered accidentally from an official inquiry into the sanitary state of Tredegar having been directed to be made by the Privy Council.

These facts of themselves prove the necessity which exists—if central and local sanitary government is ever to get free of the slough of inadequacy—for a registration of disease. They prove also that such a registration should not be restricted to England and Wales, but should also extend to the whole of Great Britain. It would be in the highest degree discreditable to our central sanitary organisation, and to the profession generally, that no sufficient account can be given of the early history of the recent outbreak of so rare a visitant as relapsing fever in an epidemic form; that the first serious local visitation of the disease should have passed unknown; and, we may add, that no knowledge should exist of the extent to which the epidemic has spread in the kingdom,—if it were not that this ignorance depends upon circumstances for which the State alone is responsible, and which the State alone can remove.

It is obvious that the first element in a comprehensive scheme for the limitation of the spreading diseases must be a knowledge of the times and localities of their appearance. This knowledge cannot be given by the most elaborate returns of causes of death; but such returns as are published in the Registrar-General's Quarterly Returns, and as utilised by the Medical Department of the Privy Council, give a very significant indication of the benefit which would arise from a registration and publication of diseases. Wanting the knowledge which can be thus obtained, it is impossible for the central Government to warn threatened localities of impending danger, and to see that the local governments take the necessary measures to ward it off. The action of the central Government (at least such action as is likely to prove beneficial) is only possible after the mischief has been done; not, as it should be, before it is accomplished.

The papers by Mr. T. J. DYKE (the Medical Officer of Health for Merthyr Tydvil) and Dr. ROBINSON (the Medical Officer of Health for Leeds) showed that very probably a considerable part was played in the dissemination of relapsing fever by vagrant sick and convalescent from the disease—a mode of spread against which, by due warning and preparation, it ought to be possible to erect tolerably secure barriers.

The two papers referred to were admirable instances of the extraordinary value of the labours of trained medical officers of health. Every one of the large number of cases of relapsing fever which came to the knowledge of Mr. DYKE and Dr. ROBINSON in the respective towns of which they have the health-charge, was made a subject of exhaustive inquiry, with results which we shall lay before our readers in detail in a subsequent number.

Until a short time ago, an apparently reasonable objection could, perhaps, be urged against a registration of disease—namely, that no scheme sufficiently practicable to justify adoption by the Government had been suggested. This objection cannot now be maintained. The propositions of Mr. JAMES LEWIS, of the General Register Office, who writes with large practical knowledge of all that concerns registration, so thoroughly meet every serious difficulty, that objections to a registration of disease must henceforth be placed on other grounds than those of working difficulties. This is certain, that any scheme for the better sanitary government of the kingdom, central and local, that does not provide for a registration of disease, will be emasculated.

# Medical Annotations.

"Ne quid nimis."

## THE "DREADNOUGHT" SMALL-POX HOSPITAL.

AT the meeting of the Metropolitan Asylums Board on Saturday, it was resolved to accept the offer of the Admiralty, and to fit up the *Dreadnought* as a Convalescent Small-pox Hospital. We took occasion some six weeks since to refer to a suggestion that was made as to the propriety of utilising the ship as a temporary receptacle for small-pox cases, and pointed out at that time the advantages that would arise on the score of isolation, and the close proximity of the ship to those districts most in need of hospital accommodation. The scheme was propounded about two months ago, but the authorities at Gwydyr House cast cold water upon it, asserting, according to *The Times*, that "the ship could not give the space required for this epidemic," though it does not appear that they had ascertained the cubical capacity of the vessel, or that they made any statement whatever as to the number that she was calculated to accommodate. It was, indeed, hastily and unreasonably presumed at the head-quarters of the Poor-law Board that because the old ship had been very properly vacated by the Seamen's Hospital Society as unsuitable for the purposes of a permanent establishment for the sick, she was ill-adapted for the purposes of a temporary hospital during the prevalence of epidemics. We believe that the *Dreadnought* is worth keeping afloat (if cheeseparing proclivities will permit) for this very purpose for some years to come, and hence congratulate the General Purposes Committee of the Metropolitan Asylums Board on their success with the Lords of the Admiralty in obtaining a loan of the ship. The Seamen's Hospital Society having paid dearly for their fittings in 1856, cleared everything away last year, and have left a clean sweep fore and aft. There are four entire decks, varying from 150 ft. to 200 ft. in length, and two, or at all events three, only of these should be occupied by patients. No need exists for any warming apparatus during the next seven months, by which time we may fairly hope that the epidemic will have ceased. Cooking arrangements can be easily constructed under the forecastle, there is abundance of room for nurses and servants' quarters under the poop, and a very large deck space exists for air and exercise. The Committee declare their ability to have the ship ready for the reception of patients a few days from this date, and we shall look forward with interest to the accomplishment of a scheme that we have consistently and persistently advocated.

## MODERN ANÆSTHETICS.

FROM the recent numbers of the *British Journal of Dental Science* we learn that a controversy is agitating the dental profession respecting the rival claims of nitrous oxide gas and the bichloride of methylene as an anæsthetic in dental cases. Within the last three years a great change has come over the practice of dentistry, which has been shorn of nearly all its horrors by the introduction of the nitrous oxide gas into dental practice; and the public has not been slow to appreciate the advantages of the method, and to insist upon being saved the tortures of tooth-extraction. Formerly anæsthesia by chloroform for the removal of teeth was the exception rather than the rule, and only asked for when some really serious operations were to be undergone. The dentists, with some few exceptions, very wisely declined to take the responsibility of administering chloroform, and it became necessary to secure the co-operation of the patient's own medical adviser, or of a professed chloroformist, to undertake the duty. Since, however, the introduction of the American method of administering nitrous oxide gas by Dr. Evans, of Paris, in April, 1868, the ease and safety with which anæsthesia can be brought about have induced the majority of dentists to undertake the administration of the gas themselves, though some of the leading members of the dental profession still prefer to secure the services of a skilled administrator.

Bichloride of methylene, which has quite recently been put forward as a rival claimant for popular favour with the nitrous oxide gas, is one of the series of anæsthetics introduced at various times by Dr. B. W. Richardson, and has been somewhat extensively employed at Guy's Hospital, both in the ophthalmic and dental departments, by Mr. Rendle, the surgical registrar. Mr. Salter, the dental surgeon at Guy's, and Mr. Spence Bate, the well-known dentist of Plymouth, speak in the highest terms of the bichloride of methylene, and are to some extent confirmed by other practitioners in more recent numbers of the dental journal. Mr. Clover and Mr. Braine, who are both experienced administrators of anæsthetics, on the other hand, prefer the nitrous oxide gas to the bichloride of methylene, which they regard as uncertain in composition, and as more dangerous, particularly in untried hands, than the nitrous oxide gas. The bichloride appears, too, to have the disadvantage of causing nausea, and occasionally sickness—a result almost unknown from the nitrous oxide gas; and the advantage of greater portability of the former agent is almost neutralised by the recent introduction of liquid nitrous oxide contained in comparatively small and readily portable iron bottles.

The recent discussion respecting the merits of the rival anæsthetics is, we understand, only a revival of a controversy some three years old, for at the Dental Hospital in Soho-square at that time a series of administrations of the nitrous oxide gas and the bichloride of methylene were undertaken alternately, with the result of showing a decided superiority on the part of the gas. As regards general surgery, neither agent is of any very extended utility, or likely to supersede the use of chloroform. In ophthalmic surgery, the bichloride of methylene has been of some service, and has the advantage of not inducing the state of turgescence of the veins so constant with the nitrous oxide.

## THE ANATOMY ACT.

THE Act of William IV., commonly known as the Anatomy Act, is proposed to be amended by a short Bill introduced by the Secretary and Under-Secretary of State for the Home Department; the object of which is to give power to the Secretary of State to extend the period for transmission of certificates of interment of bodies devoted to anatomical purposes. This movement has, we believe, originated with Professor Humphry, of Cambridge, who is of opinion that, if the period for interment were extended, the anatomical teachers would be able to make provision during the summer months for the necessities of the winter. We very much doubt whether the alteration in question will be of much practical utility, though there can be no objection to it; for all attempts to preserve bodies for dissection for any lengthened period have hitherto proved disastrous failures. If, however, the Anatomy Act is to be amended, we trust that some alteration may be made in Clause 7, which has hitherto proved the great obstacle to a sufficient supply of subjects; since it vests the right to withhold the bodies of unclaimed paupers, practically, in the hands of Poor-law officials, who may, or more frequently may *not*, be ready to forward scientific studies. Upon this subject Mr. Secretary Bruce received a deputation of ana-

tomical teachers a year ago; and we trust that the facts then laid before him will induce him to add some amendment of the clause in question to the Bill now before the House of Commons.

## ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

ON Saturday last Dr. Druitt read a paper "On Physical Education in the Lower Public Schools." He pointed out that the cubic space insisted upon by the Privy Council was not sufficient. At present each child must have eight square feet of floor space, and ten feet in height, or only eighty cubic feet. It was quite impossible to provide a sufficiency of fresh air in so small a space without draught. In many of the existing schools the cloak-rooms are small and insufficient, whilst the latrines, which the idle children use as play-places, are generally most offensive. The majority of the school-children, even in St. George's, Hanover-square, the richest parish in the world, required to be taught personal cleanliness—a lesson more important to their future welfare than any kind of learning. Every school should therefore have a well-appointed lavatory and laundry. There should be a beadle to superintend the cleanliness of the boys, and a woman to wash the girls. It might be necessary to wash some of the clothes also. A playground and a gymnasium should be provided, and at short intervals the children should be turned out to play. Dr. Druitt expressed great fears that the School Board would overlook these important points, and remarked that the Committee of Education of the Privy Council had not shown itself competent to deal with them.

In the discussion which followed the reading of the paper, it was observed that the School Board had two important difficulties to meet, which had not as yet attracted much attention—first, as regards the payment of fees for children whose parents are unable to pay; and, secondly, as regards children who were too ill-fed to be able to give attention to the teaching. With regard to the first, the School Board had no machinery for ascertaining the real condition of the parents, and as the guardians have not only officers to do this, but power to pay the fees also, the question was whether they should not be called upon to perform this part of their duty better than they do at present; but Mr. Liddle contended that the schools should be altogether free. With regard to the second point, it was observed that it is impossible to educate starving children, but any attempt on the part of the School Board to give food would be open to very great objections. A general opinion was expressed that the education authorities have but a very imperfect notion of the difficulties they are certain to encounter, and that there are many indications of a gigantic failure.

## MILITARY MEDICAL MATTERS.

THE reports of the debate in the House of Commons, on Monday last, on the vote for the medical establishments and services, were either unusually imperfect, or the speakers on the Government benches presumed on the ignorance of the members with regard to these subjects to an extent that has rarely been exceeded. It is quite possible that there was a happy combination of these two things, otherwise the subject was manipulated with a skill and success worthy of the best trained jugglers. First of all, Dr. Brewer asked for information regarding the provision of an ambulance corps, and this gave Sir Henry Storks occasion to fire off a portion of the Report of the Ambulance Committee with great effect. It had in reality no more to do with the subject than rhubarb has to do with rhodomontade; but it looked as if it had. It appeared, too, as if the War Office Committee (presided over by an army doctor, by the way, in contravention of the regulations) had thoroughly exhausted the subject as to the requisite amount of wheeled transport by a new and elaborate series of statistical inquiries. The War Minister shone resplendently in the light reflected by this piece of work of his subordinates. If the extract from their report terminated where it did, and was unaccompanied by any explanation, it was scarcely intelligible, besides being no answer whatever to the question, which was not as to ambulance waggons, but an ambulance corps. The Army Hospital Corps that is to be also played a prominent part in the debate. We are told that there is one inspector-general of hospitals at the head-quarters of this corps (Netley?) one at Netley, and so on. According to Mr. Cardwell, the head-quarters must be in two places at the same time, justifying two different appointments; for, after Sir Henry Storks had told us that there was one inspector-general at its head-quarters, and another at Netley, Mr. Cardwell says two combatant officers are requisite at the latter place because "it must be remembered the head-quarters of the Army Hospital Corps is there"! Then, again, there appears to be a conviction in the minds of some honourable members that because some officers are termed deputy-inspectors, they must be subordinate to and aiding the inspectors-general in their work at the same stations. This is akin to the idea of the recruit who wished to join the 42nd Regiment in order to be near his brother, who was in the 43rd. We are to have, moreover, a large and efficient army hospital corps, placed entirely at the disposal of the medical officers, according to Sir Henry Storks; while, according to Mr. Cardwell, that is just what they are not to be, for the presence of the mere germ of that corps at Netley is urged as the reason why a commandant and assistant-commandant are required there. The whole subject has been tied into so many knots by the hands of the War Minister and his subordinate, that it is past unravelling. We are forcibly reminded of what once occurred during the Crimean War, with a previous War Minister. The papers dwelt upon the fact that there was no transport for the conveyance of the sick and wounded, and some members made rather strong speeches thereon. "What!" said the War Minister, in indignant tones, "why, I hold in my hand a return showing that there are now actually present in the Crimea so many hundred pairs of panniers!" He was loudly cheered, for no one knew that panniers were for the carriage of medicines only, and not patients.

## ART THE HANDMAID OF MEDICINE AND SURGERY.

AN able writer in *The Times*, reviewing a recent work of art by a member of our profession, which we ourselves had already noticed, speaks of the alliance frequently observable between a culture of art and the practice of surgery, and quotes, as instances of eminence in both, the names of Prescott Hewett, Solly, and Henry Thompson; to which may be added those of the Bells (both Charles and John), Wadd, H. C. Johnson, Carswell, Symonds of Bristol, Acland of Oxford, John Marshall, T. K. Chambers, and others; the works of Sir Charles Bell in particular being of the highest order of artistic merit, and the etchings of John Bell, which illustrate his books on anatomy, scarcely less remarkable. We desire to direct attention to this article, however, because it strikes a chord with which we are in harmony, and the vibrations of which we are conscious it is our advantage to prolong; also because it furnishes us with an opportunity of showing that the cultivation of art among us is not merely a resource and a graceful accomplishment, but a direct aid to the study and practice

both of medicine and surgery. The Regius Professor of Medicine at Oxford, addressing the students of St. George's Hospital, has dwelt upon the advantages of a study of art; and, in an elaborate report on the surgical and educational appliances shown in the International Exhibition of 1862, Mr. Haden himself has recorded his regret that "while so much is done to stimulate the intelligence of the future surgeon, so little is done to educate his eye and hand"; and then goes on to say, in reference more particularly to the art of the physician, that "nothing is more likely to reveal to him those aberrations of symmetry, colour, and form, which constitute the aspect of disease, than the habits of close observation which are engendered in the practice of modelling and drawing from nature." This is indisputable. A delicate operation (let us say upon the eye) would certainly be none the less skilfully performed if the hand which conducted it were practised in the use of such an instrument as the etching needle, and the diagnosis of latent disease none the less likely of successful solution if the eye brought to bear upon it were accustomed to weigh and appreciate niceties and differences of form and colour.

## LIFE-LIKE IN DEATH.

ROSSBACH, in a late number of Virchow's *Archiv* (Band 51), has given an interesting account of numerous cases of sudden death on the fields of Beaumont and Sedan, in which the bodies of those killed retained the position and the expression of face present just before death. In one case, a group of six French soldiers were killed by the explosion of a single shell as they were breakfasting in a slight hollow. The shell had struck one of them sitting in the middle full in the back, where it was partly lodged; the fragments had torn away his thighs and buttocks, and killed his comrades. From one of them the skull was carried off, while the face still retained the expression of laughter at the joke of a companion. The next one to him still held delicately raised to his lips, between the forefinger and thumb, a tin cup from which he was about to drink when the explosion had taken off the whole of the upper part of the face and head. The close manner in which they were seated together had prevented the bodies from falling after the lapse of twenty-four hours. In another case a soldier shot through the breast lay half reclining on one side, with the photograph of his wife or lover held up straight before him. Rossbach cannot admit that in such cases the nervous centres must necessarily be injured, nor that death must have been instantaneous. Rigor mortis must have set in between the last moment of life and the first of death.

## THE CIVIL SERVICE ESTIMATES.

THE miscellaneous items of the national expenditure which it is the custom to group together under the head of Civil Service Estimates, amount for the year 1871-72 to £17,869,799, being about £500,000 in excess of the year 1870-71, which in its turn showed an increase of £100,000 over 1869-70. The augmentation in the present year is more than accounted for under the one item of "Public Education."

Following our usual practice of noting, for the benefit of our readers, such points in these estimates as have relation more or less to professional interests, we observe first that the Public Health Department of the Privy Council Office is to cost this year £26,610, by comparison with £21,219 in the year preceding, there being an increase of £2000 in the grants to public vaccinators, and of £2600 in the cost of sanitary and vaccination inspections. Quarantine expenses reckon for £2346, and the Veterinary department for £12,241. The Home Office takes £25,347 for the inspection of factories, (including £3650 fees to certifying surgeons,) £13,710 for the inspection of mines, £6685 for the Local Government Acts Office, and £1104 for the inspection of burial-grounds. The Foreign Office has a charge of £30 (annually) for "Examining Medical Officer to Queen's Messengers." The registration of births, deaths, and marriages throughout the United Kingdom costs £65,000, minus about £3000 received in the way of fees for searches, &c. The expenditure for the Census this year is estimated at £134,000, but by the time this operation is completed, by the publication of full reports, the aggregate cost will probably be something like £180,000. The supervision of lunatics costs £15,432 in England, £6003 in Scotland, and £3977 in Ireland. The Poor-law medical service of England is down this year for £118,000, embracing a moiety of the salaries, including cost of medicines, appliances, &c.; this is an increase of £3000 on the charge for the previous year. In Scotland the medical relief of the poor costs £10,200; in Ireland a moiety of the salaries of workhouse and dispensary medical officers amounts to £49,742, while £16,071 go for medicines and appliances. The medical relief of the poor, therefore, creates an Imperial charge this year altogether of £193,800. Among the items of charge for the promotion of education, science, and art, various learned societies are set down for £12,450, the University of London for £9642, the Universities in Scotland for £18,880, and Queen's University and Queen's Colleges in Ireland for £7963. The Rivers Pollution Commission ask for £4100, promising very shortly their Fourth Report, and intimating that next year they hope to complete their work. The Contagious Diseases Act Commission is estimated to cost this year £1250, and a note from the secretary is appended saying that the inquiry will be a prolonged one.

## THE COLLEGE OF SURGEONS.

THE quarterly meeting of the Council of the College of Surgeons was held on Friday (14th inst.), when the ordinary routine business was transacted. A proposition of the President, Sir Wm. Fergusson, to devote a sum of money to providing cases for the display of a collection of surgical instruments to be formed in the College, gave rise to some discussion, but was ultimately agreed to.

At this meeting Mr. James A. Salter, F.R.S., dental surgeon to Guy's Hospital, was appointed an Examiner in Dental Surgery, in the place of Mr. W. A. Harrison, F.R.C.S., whose period of office had expired. Mr. Salter is well known as one of the most scientific members of the dental profession, and has contributed much to the literature of his own department, as well as to the records of biological science generally. Besides numerous articles in the Guy's Hospital Reports, Mr. Salter also contributed the valuable article on the Surgical Diseases connected with the Teeth to Holmes's "System of Surgery."

The committee appointed to confer with the College of Physicians and the Apothecaries' Society on the subject of a conjoint examination did not report to the Council at its late meeting.

## THE CLINICAL SOCIETY.

WHETHER the papers read were too exclusively medical, or not sufficiently brief, it is certain that the discussions at the last meeting of this Society on the 14th inst. were by no means brilliant. The notes read by Dr. Broadbent on the treatment of skin diseases by phosphorus were carefully compiled, but partook very much of theory. Dr. Frederick Simms's case of hemiplegia was, as he intimated, unfortunately incomplete, because the patient objected to die, and therefore gave him no opportunity of verifying or stultify-

ing an elaborate diagnosis; and of the two papers read by Dr. Buzzard for Dr. Fairbank and Mr. Lawson Tait, the former elicited no remarks whatever from those present, and the practice indicated in the latter evidently found very little favour with the members who cared to canvass its merits. A suggestion made in the course of the evening by Mr. Brudenell Carter, to the effect that readers of papers should stand in such a position as to front their audience, is well worthy of consideration, for it is usually more satisfactory to hear the words of the speaker than to have an uninterrupted view of his back.

## RESECTION OF THE ELBOW-JOINT.

A CASE which showed how great the amount of motion attainable after resection of the elbow-joint may be, was exhibited a few evenings since at the Medical Society of London by Mr. J. D. Hill. It was that of a man, aged thirty-two, who had sustained a compound comminuted fracture of the olecranon, about four years ago. An attempt to save the joint failing, the operation of resection was practised a month after the receipt of the injury, and the case rapidly recovered, with good motion, at the end of three months. The man has now complete control over the brachial muscles, the power of flexion and extension being very good, and supination and pronation nearly equal to those of the other limb. He can carry a bucket of water, use a saw or hammer, and write a good hand. In the operation a long straight incision was made at the back of the joint; the attachments of the brachialis anticus and of the biceps were carefully preserved; a chain saw was used to cut from within outwards, to avoid disturbance of the soft parts; and the limb after operation was placed upon interrupted rectangular splints, so that the ends of the bones were kept apart during the healing process. Mr. Hill was complimented by Mr. Henry Smith and other surgeons on the case, which showed how readily free movement can be obtained when the muscles can be brought into action soon after operation, before they begin to waste and whilst the new interosseous textures are yielding.

## DR. TRENCH'S ANNUAL REPORT.

DR. TRENCH'S annual report on the sanitary state of Liverpool has just been issued. Notwithstanding the immense amount of sickness with which the town was visited last year, the death-rate was only 31 per 1000, or 1 per 1000 less than the average rate of ten years. The highest local death-rate was 43·9 per 1000 in Vauxhall ward, whilst the lowest was in Castle-street and St. Peter's, where the death-rate was only 18. The average age at death was 24 in the parish and 20 in the out-townships. Deaths of children under five years of age contribute more than one-half of the whole.

Zymotic diseases caused 29 per cent. of the deaths. There are 35 streets in the parish, in each of which there were more than 3 deaths from fever, and 10 in the out districts. Only 5 persons connected with professional and mercantile families died of fever, whilst 173 died of it amongst the class of labourers. Not quite 1 in 1000 of the population died of relapsing fever; only 2 persons succumbed to it belonging to the mercantile and professional classes. Scarlatina killed 2 in every 1000, and diarrhœa about the same proportion.

Dr. Trench gives, as usual, a full account of the very excellent work done by himself and his intelligent staff. Over 90,000 day visits were made to lodging and sub-let houses, and nearly 17,000 night visits. 1,458 rooms were found overcrowded; 615 were found indecently occupied by 923 males and 1032 females, besides having in them 545 children. Informations were laid against 868 chief tenants.

Dr. Trench has lately published a pamphlet, in which he proposes to form a Labourers' Friend Society, with the object of supplying more adequate house accommodation; and he rightly adopts purely commercial principles as alone adequate to meet the case. We cordially agree with him that the question of housing large sections of the community is a financial matter far beyond the reach of mere benevolence. We most heartily wish him success, and we hope that the plans he has suggested will commend themselves to those who are anxious to remove the reproach, both physical and moral, which justly rests upon the town of Liverpool in its relation to its labouring classes.

## THE CENSUS, AND TOWN DEATH-RATES.

ALTHOUGH some weeks will elapse before any official declaration of the results of the census is made, local announcements of the population of various places are almost daily to be met with. One of these relates to Aberdeen, and we notice it because it affords an early illustration of the insufficiency of a decennial census as a basis upon which to calculate town death-rates. The population of Aberdeen in 1851 was 71,973, and in 1861 it was 73,900; the last monthly return of deaths in the eight principal towns of Scotland states that the number of deaths in Aberdeen during March last was 201, and the annual death-rate is given as 32 per 1000 on the present *estimated population* (76,000). It now appears that the census makes the present *actual population* of Aberdeen 88,000, so that the death-rate during March was at the annual rate of 28 instead of 32 per 1000. We shall be much surprised if some of our large English towns do not furnish equally strong proof of the importance of more frequent enumerations of their population, so far as public health questions are concerned.

## POPULAR IGNORANCE OF SURGERY.

THE populace is apparently not much enlightened as regards scientific facts, notwithstanding the flood of popular manuals which is constantly flowing from the printing press. One would have thought that common sense would suggest binding up a bleeding leg, but that rare sense seems to have been wanting on a recent occasion, when a woman of thirty-two was allowed to bleed to death from a burst varicose vein by her fellow-servants and mistress, before help arrived. Dr. Lankester, in his homily delivered on the occasion, remarked on the necessity of our school boards causing all young persons to be instructed in the rudiments of surgery. We demur somewhat to this, for a little knowledge is dangerous; but if Professor Huxley carries out his idea of teaching all our young people physiology, they will necessarily learn something of the circulation of the blood, and incidentally the means of arresting its flow.

## ADULTERATION OF DRINK.

WE referred cursorily last week to the adulteration of drink by brewers or publicans, and we would once more call attention to the extent and magnitude of the evil. We fancy it is far more due to the effect of adulteration by narcotics in increasing drinking than to increased cheapness of production, or any other ordinary cause. The object with which it is done appears to be that the working man who sits down to refresh himself with a half-pint, or pint, shall at once become sufficiently muddled to lose his self-control, and to call for more and more in excess of his originally prudent and proper intention. A business that

poisons men for the sake of plundering them is simply a public nuisance; and, even if other kinds of adulteration are for a time left unpunished, no leniency should be shown to this. It is difficult to say by whom the noxious ingredients are most frequently added. In any enactment on the subject, care should be taken that publicans are not made scapegoats for more wealthy sinners. Between them, the lot of the poor man, who depends upon a beershop for refreshment, is hard indeed. If he go there, the chances are that he is drugged into drunkenness when he wishes only to quench his thirst; and if he drink water, he incurs risks of poisoning by sewage which are not to be lightly regarded.

## HEALTH OF PRISONERS IN SCOTLAND.

THE last annual blue-book on Prisons in Scotland presented to the Home Secretary includes a valuable report by Professor Christison on the occurrence of scrofulous disease of the neck among persons confined in the General Prison at Perth. The report deals categorically with 67 cases, the great majority of which came from Glasgow and other local prisons, where the diet consisted of porridge, milk, bread, and peasoup, and the exercise of from fifteen to thirty minutes under a railway-arch closed at one end, or in an iron cage in the open air. When the tumours appeared, the general rule was to give cod-liver oil, without change of diet. The prisons at Glasgow and Paisley have supplied, the former 57 and the latter 73 cases of scrofula for every 1000 prisoners admitted. Former experiences in England, as well as in Scotland, prove conclusively that a low and unmixed dietary, with exercise defective in amount as well as faulty in kind, tend to produce scurvy and scrofulous diseases among prisoners. Dr. Christison, therefore, indicates that immediate steps should be taken to put an end to this kind of "personal suffering and injury which are as little an unavoidable as they are an intentional part of the punishment of imprisonment."

## THE INDIAN MEDICAL SERVICE.

AN official announcement was made in last Tuesday's *Gazette* that there will be no competitive examination for entrance to the Indian Medical Service next August. This will be bad news for those young men who have been preparing for the Indian Service, and particularly for those who, by birth or connexion, are disposed to seek service in the Indian rather than in the British army. There will doubtless be an examination for entrance to both the British army and navy in August, and both these services, and particularly the latter, will reap the benefit of India being closed, in an increased number of candidates. On the last occasion, some of the candidates who were qualified for the army, but for whom no vacancies could be found, were admitted to the navy without further examination, and the same thing may not improbably occur again.

## ILLNESS AND THE POLICE.

THE most remarkable police blunder that we read of this week was in the case of a poor woman who fell down and broke her leg on the pavement of Drury-lane. Faint from the injury, and unable to rise, she was pronounced to be "drunk" by a policeman, was carried to the station-house, and locked up for the night. In the morning, "when about to be taken before a magistrate," the truth was discovered, and she was conveyed to a hospital instead. We do not blame the individual policemen who commit these blunders, but the total want of medical supervision of prisoners. Scarcely a week passes without some fresh proof of the need that there is for a more careful examination of insensible persons than any which a police-constable or police inspector can be reasonably expected to make. Sidney Smith said that passengers would be locked up in railway carriages until a bishop was burnt alive; and we suppose the general public will have to suffer as at present until at least a member of Parliament has been locked up in a state of unconsciousness, and found dead on opening the cell door in the morning.

## POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A GENERAL MEETING of this Association will be held at the Freemasons' Tavern, Great Queen-street, Lincoln's-inn-fields, on Wednesday, May 3rd, at 7.30 P.M. precisely, when the president, Dr. Rogers, will give an exposition of the causes which led to the enactment of the Medical Charities Act (Ireland), comment on the clauses which particularly interest the profession, show the results, and offer some suggestions for the modification of Poor-law medical relief in England, and for the utilisation of Poor-law medical officers as deputy health officers in their respective districts, as recommended in the Report of the Royal Sanitary Commission. Subsequently the sense of the meeting will be taken on the various questions raised in the President's address.

We trust there will be a good attendance of members of the Association, and of the profession generally, on what promises to be a very interesting occasion.

## BOILER EXPLOSIONS.

THE frightful accidents and the considerable mortality annually caused by the explosions of steam-boilers have now so repeatedly been brought before the public that opinion must be nearly ripe for some legislative measures with regard to them. Sir W. Fairbairn, in an important paper contributed to the *Quarterly Journal of Science*, maintains that inspection by district boards, elected by and from steam-users, and controlled by Government, would be the most efficient remedy. As a rule, boiler explosions depend upon the cupidity or carelessness of owners; and accidents, in the proper sense of the word, are quite exceptional. There can be no doubt of the need for systematic and thorough inspection; but it should be aided by a liability on the part of owners to make pecuniary compensation to injured persons or their families in every case in which the results of manifest neglect could be shown.

## LOCAL SANITARY AUTHORITIES.

WE publish elsewhere a letter from Dr. Joyce, of Rolvenden, telling a ghastly tale of the ravages of preventable disease in his locality, of the obstruction to sanitary reform on the part of some local authorities, of the supineness of others, of the brisk effervescence of the officials at Whitehall, and of the speedy subsidence of their fermentation, and, lastly, of the present recurrence of diphtheria among the people who are doomed to inhabit this favoured abode of pestilence. The narrative is inexpressibly shocking, but we commend it to the careful consideration of our readers. It would perhaps be dangerous if we were to speak of the conduct of the Board of Guardians and the Vestry in the terms which we should think true and applicable; but we may at least point out that this conduct throws some light upon the fitness of men of the same class to discharge the duties that the Royal Sanitary Commission would impose upon them. The poor are the chief or most immediate sufferers from insanitary conditions, and they require to be protected against the ignorance and greed of the small tradesmen and small farmers, just as chimney boys and factory children have been protected from their employers. And the proper constitution of the local boards of health

will be a matter of the more importance since no professional politician, eligible as a Minister of Health, can ever be expected to weigh the lives of cottagers against the exigencies of party.

## ANONYMOUS MUNIFICENCE.

IT has become quite a stock paragraph with the newspapers, that a donor known to the public only by three initials has again given a thousand pounds to this or that hospital or charitable institution. While we rejoice at the liberality of this unknown benefactor of his species, we could often wish that the stream of his charity could be more judiciously directed than in certain instances appears to have been the case. We hear of these thousands falling to the lot of some institutions that are already very wealthy, and of others that are held in but trifling esteem by those best able to judge of their operations. The power to give away thousands is one that should be controlled in its exercise by very careful inquiry, and not called into action by a captivating title, or a specious advertisement. The fabrication of both has long been almost a profession, and forms the chief resource of institutions that are unfortunately too numerous, and that have the common characteristic of laying out a pound upon officials, as a means of distributing three half-pence among the needy. Against this kind of abuse great names, and apparently laudable objects, afford not the least protection; and the only safety for the charitable rests in a detailed balance-sheet, and in taking such means as may offer themselves to discover what degree of active supervision is exerted by the honorary committee. A charity that withholds its accounts, and that is mainly directed by its secretary, should always be regarded with some degree of suspicion.

## MEDICAL OFFICER OF HEALTH AT KENSINGTON.

THERE are no less than eighteen candidates for the appointment of medical officer of health for the parish of Kensington. Of these, eight reside in other localities (one at Leicester). The salary is £200 per annum. One of the candidates is, we understand, an inveterate opponent of vaccination. We have every confidence in the Kensington Vestry that they will select a proper candidate. They have embarked in an active campaign against sanitary defects under the able guidance of one of their own members, and we cannot doubt that they will carry it on. There are, however, several candidates with high qualifications who will be ready to lend all their influence in favour of vaccination.

## LIGATURE OF THE SUBCLAVIAN ARTERY.

ON the 29th ult. Mr. Gay performed, at the Great Northern Hospital, the operation of ligature of the subclavian, under circumstances of considerable interest. The patient did well until the fifteenth day, and seemed certain of a speedy recovery; but was unfortunately carried off in three days by an acute attack of bronchitis which then supervened. We hope, through the courtesy of the house-surgeon, to be able to give a full account of this case in the Mirror of our next issue.

## DR. DEFRIEZ.

WE rejoice to observe that the presiding judge at the Old Bailey, the Right Hon. Russell Gurney, stopped the case against Dr. Defriez, of Bethnal-green, and ordered his acquittal without calling upon him for his defence. We learn with satisfaction that Dr. Defriez's colleagues have extended to him their sympathy and support. It is really too bad that a jury should have stepped out of the way so far as to order the indictment of a gentleman in opposition to the direction of the coroner, who told them that there was no possibility of a conviction. The office of parish doctor in Bethnal-green is of itself sufficiently thankless, without the extra anxiety which must follow upon a charge of manslaughter, and we hope that juries of Bethnal-green will, in future, be more considerate.

## THE GENERAL MEDICAL COUNCIL.

WE understand that a meeting of the Branch Council for England has been summoned for Thursday, the 27th inst., when no doubt the date of the annual meeting of the General Medical Council will be fixed. The appointment of Dr. Rumsey's successor rests with the Privy Council, and as, owing to the Easter vacation, there has been no recent meeting of the Privy Council, the vacancy has not yet been filled.

## A SCHOOL OF SCIENCE.

THE First Report of the Royal Commission on Scientific Instruction and the Advancement of Science recommends that the Royal College of Chemistry and the Royal School of Mines should be consolidated into one School of Science, to be governed by a council of professors, and to be provided with sufficient laboratories and assistance for giving practical instruction in Physics, Chemistry, and Biology. South Kensington is the *locale* proposed for the new school.

## GRESHAM LECTURES.

DR. SYMES THOMPSON, the Gresham Professor of Medicine, will deliver the following lectures at the College, Basinghall-street:—April 21st: "On the present Epidemic of Small-pox." April 22nd: "On the Organs of Respiration." April 24th: "On the Organs of Circulation." May 24th: "On the Water-supply of London." May 25th: "On the Heart and Lungs in Health and Disease." The lectures commence at 7 o'clock, and are free to the public."

## THE WOMEN OF SHEFFIELD.

IT is said that the women of Sheffield, to the number of 700, have held a meeting from which men were excluded, and that they unanimously resolved a very vigorous resolution against the Contagious Diseases Act. Considering what novel and delightful excitement a public meeting of the more loquacious sex would offer, and that the population of Sheffield is about 200,000, it seems a matter for agreeable surprise that the town could muster no larger number of women to be present. When once gathered together, their votes, as a matter of course, would be wholly at the mercy of platform spouting.

THE Home Secretary has refused to sanction the application of the Wimbledon local board for powers to acquire compulsorily a portion of Wimbledon-common for a sewage farm. Mr. Bruce evidently does not rank a sewage farm among those public benefits which commons and open spaces are designed by the Legislature to yield to the inhabitants of towns in their proximity.

A RECENT parliamentary return shows that on the 1st of January, 1870, there were 46,548 insane paupers in England and Wales; of whom 26,634 were in county or borough lunatic asylums, 1589 in registered hospitals or licensed houses, 11,243 in workhouses, 883 in lodgings or boarded out, and 6199 residing with relatives.

THE General Council of the University of Edinburgh held its half-yearly meeting on Tuesday, the Right Hon. John Inglis, Lord Justice-General, and Chancellor of the University, presiding. The only business of medical interest before the Council related to the re-construction of the Court of Curators, an electoral body which, it may be remembered, gave much dissatisfaction recently by its appointments in general, and its medical ones in particular. A report on the subject being read, was approved of, and sent up to the University Court, with a request that the Court would adopt measures for effecting the alteration in the constitution of the Curatorial body which the report recommends.

THE Adulteration Bill stands for Committee on Tuesday next. Dr. Brewer has given notice of his intention to move a clause vesting the appointment of analysts for the metropolis in the Metropolitan Board of Works, instead of in the vestries and district boards. Considering that these latter bodies are constituted in no small measure of tradesmen, it is obviously essential to the effective working of the laws against adulteration that the analysts should be appointed by a superior authority.

AT a Court of Committees of the Governors, of Guy's Hospital, held at the hospital on Wednesday, Mr. Bryant was appointed surgeon and Mr. Davies Colley assistant-surgeon. Mr. Cock was also appointed consulting surgeon to the hospital on the occasion of his retirement.

DR. ADAM SEDGWICK, Woodwardian Professor in the University of Cambridge since 1818, and for fifty-three years the life and soul of all efforts to promote the study of physical science in that seat of learning, is about to resign the active duties attached to the chair.

DR. BREWER, M.P., was last week invited by the Committee of the Colchester Working Men's Liberal Association to spend an evening with them in discussing political matters; the upshot of which was a unanimous resolution of confidence in Dr. Brewer.

AT the last meeting of the Toxteth guardians, gratuities amounting altogether to £150 were awarded to Dr. Lister and various workhouse and other officers, for extra services rendered during the prevalence of small-pox and relapsing fever in the township.

THE foundation-stone of the new Savernake Cottage Hospital, Marlborough, was laid last week by the Marchioness of Ailesbury. The site of the building was given by the Marquis, who has also contributed largely to the fund for its erection.

ANOTHER prosecution for transmission of infected clothing without the necessary precautions was adjudicated upon last Saturday by the Lambeth police-magistrate, and a fine of £1 was inflicted, with the alternative of fourteen days' imprisonment.

DR. FALCONER (of Bath), Professor Humphry (of Cambridge), and Professor Lister (of Edinburgh), have been elected British Corresponding Members of the Harveian Society of London.

WE greatly regret to hear that Mr. Brady, M.P., is suffering from an attack of bronchitis, so severe as to confine him to his room.

THE second of the President of the Royal Society's *soirées* will take place this (Saturday) evening at Burlington House.

PARIS, in addition to her other calamities, is not only suffering greatly from bronchitis and influenza, but (according to the *Daily News* correspondent) is threatened with cholera, diarrhœa of the choleraic type being widely prevalent and largely fatal.

## A PETITION TO PARLIAMENT.

WE subjoin a proposed form of petition to the Houses of Parliament in favour of the Medical Act Amendment Bill. We request those of our readers who may desire the passing of the Bill, and who approve the petition, to send us a written authority to affix their names to the copy of it that will be prepared for presentation; or to copy the subjoined, and place the transcription in the hands of a member of Parliament. We repeat once more that the main feature of THE LANCET Bill is to form a Medical Council containing direct representatives of the profession, with no preponderance of the corporation interests; and that this Council will be charged with the duty of controlling the education and examination of future practitioners.

*To the Honourable the Commons of Great Britain and Ireland in Parliament assembled.*

Your petitioner is a member of the medical profession, and, as such, is deeply interested in any legislation which seeks to improve medical education and to increase the efficiency of the examinations through which entrance into that profession is obtained.

It has been abundantly shown in the discussions of your honourable House, and of the General Medical Council, that many persons who are quite unfit to discharge medical duties receive, nevertheless, diplomas or licences from some of the corporations now empowered to grant them.

Your petitioner is of opinion that the radical evil of the system by which, at present, licences to practise the various branches of medicine are procured, consists in the large number of bodies which grant such licences, and which depend for their income mainly upon the fees paid by those who pass their examinations. The inevitable consequence is a sharp competition between the various bodies, and a tendency to laxity in the examinations.

This evil is all the greater by reason of the fact that the various licensing bodies are virtually uncontrolled by the existing General Medical Council, which is made up, to the extent of three-fourths, by representatives of the very bodies which it exists to supervise and regulate.

Your petitioner believes that a Bill, now before your honourable House, entitled, "An Act to amend the law relating to the qualification, education, and registration of practitioners in medicine and surgery," by establishing a smaller and more independent Medical Council, giving it complete power to regulate medical education, and making it responsible for the appointment of one efficient Board of Examiners in medicine in each division of the United Kingdom, entirely independent of the corporations, to examine all persons entering the profession, will best rectify the evils justly complained of.

Your petitioner, therefore, earnestly prays the members of your honourable House to give every support to this measure, so that it may become law with as little delay as possible.

And your petitioner will ever pray.

## THE SMALL-POX EPIDEMIC.

### PROGRESS OF THE EPIDEMIC.

THE fatal cases of small-pox in London, which during the ten weeks ending 8th inst. had ranged between 185 and 227, averaging 206, rose last week to 265, the highest weekly number that has occurred during the present epidemic. It is probable that part of this increase belonged to the preceding week, in which registration was somewhat interrupted by the occurrence of Good Friday. The highest

weekly number of deaths from small-pox in London during the various epidemics which prevailed during the thirty-one years 1840-1870, was 102, in the last week of 1840. In eight permanent and temporary hospitals for this disease 102 deaths were recorded last week, of which 55 occurred in the institution at Hampstead. After distributing, so far as is practicable, these deaths in hospital among the districts from which the patients were admitted, it appears that 30 deaths from small-pox last week belonged to the West group of districts, 76 to the North, 18 to the Central, 57 to the East, and 84 to the South. The fatal cases showed, in each of these groups of districts, an increase upon the previous week, which was largest in the North and West of London; in the North the deaths were more numerous in Marylebone, Somer's-town, and Islington; in the West the deaths had increased in Westminster and Kensington. In the South districts the disease was most fatally prevalent in Southwark and Battersea; in the latter sub-district 12 fatal cases were again returned last week, in addition to one which was recorded in the hospital at Stockwell.

### VACCINATION IN ST. PANCRAS.

At present St. Pancras occupies the unenviable position of presenting a higher rate of increase in the number of cases of small-pox than any other part of town. Nor is it extraordinary. For years past the vaccination of this part of the metropolis has been greatly neglected, and there is still a very general prejudice against the production of more than two small vesicles. Examination has proved that twenty-five per cent. of the children in the lower schools remain unvaccinated, whilst hundreds of others are insufficiently protected. The guardians also appear to have felt the anti-vaccination influence to the extent of remaining indifferent on the subject. It is only recently that they have appointed inspectors, and they are only now fixing on the stations. We have already animadverted on the election of one public vaccinator in the place of six, but we take this opportunity of correcting a slight error in stating that Dr. Claremont was not employed in the workhouse, but had acted for many years as a district medical officer and public vaccinator, besides carrying on an extensive practice. Nor have the vestry of St. Pancras been remarkable for their sanitary zeal; and, as Mr. Chandler observed, we should like to know whether in all cases the bedding and clothes of infected persons are properly disinfected as well as the abodes of these poor people. This excellent guardian said that he did not urge the importance of these matters on the ground of humanity, but from a pecuniary point of view; as every orphan thrown upon the parish costs some £20 or £30 a year.

### VALUE OF REVACCINATION.

At the Metropolitan Asylums Board it was asserted that no nurse or official at Hampstead or Islington has taken small-pox, all having been carefully revaccinated. The same remark applies to the small-pox hospitals at Liverpool. At Homerton a man entered upon his duties without having been reported to the medical officer, and consequently without revaccination. He has taken the disease very slightly. A statement has recently been made by the anti-vaccinationists that one of the nurses at this hospital is suffering from small-pox. This is an entire mistake. The nurse in question has been attacked with erysipelas, from which there are several patients now suffering.

By the way, it is desirable that all officers and servants engaged in the removal of small-pox patients, or in the administration of relief, should be revaccinated. Last week a man who has been engaged as an ambulance driver was taken ill. He had not been revaccinated.

### FIELD HOSPITAL MARQUEES FOR SMALL-POX.

At an early period we suggested that the Metropolitan Asylums Managers should set up some military field hospital marquees for the isolation of small-pox patients. The question was pooh-poohed. It was said that it would be impossible to put up a tent within the metropolitan area because it contravened the provisions of the Building Acts, and so the matter dropped, although we are in a position to state that the Government were ready to give every assistance to the scheme. But we rejoice to hear that the application for permission to erect hospital tents has at length been made, and was at once cordially met by the Metropolitan Board of Works, who, if they cannot directly sanction, will not oppose their use. It is even further suggested that the tents may be put up in the grounds attached to the existing hospitals. After this we may venture to repeat a statement made at the early part of the epidemic—that the managers might have long ago provided, by means of the *Dreadnought* and field hospitals, of which they now admit the suitableness, for the isolation of every case of small-pox in the metropolis.

### CONCEALMENT OF SMALL-POX.

It is high time that the concealment of small-pox should be made penal. During the present epidemic several persons have neglected to send for medical attendance in order to prevent the removal of the patient to hospital, or for the purpose of enabling the parent to carry on his trade or occupation. Not long ago a baker carefully concealed his apprentice in an upper room, and the neighbours only found out that there had been small-pox in the house when the mischief was all but over. A laundress absolutely allowed her child to die without attendance, fearing to lose her work, apparently forgetful altogether of the fact that she was spreading the disease amongst all her patrons. So again last week an inquest was held upon a child which had been left by its mother in a small room in which there lived six persons, whilst she went out charing. Here also the woman refused to send for medical attendance.

### HOW SMALL-POX IS SPREAD.

Small-pox is prevailing at Grimsby, Lincolnshire, and at the meeting of the Town Council it was stated that three cases had been traced to the use of cabs which had been employed at the funerals of persons who had died of small-pox. It was remarked that the Town Council had no authority to order the cabs to be disinfected, or to prevent their use.

### VACCINATION STATIONS.

Mr. Broadbent, one of the public vaccinators of the City of Lincoln, applied to the guardians for the rent of a vaccination station which it had been found necessary to open at the lower part of the city. The guardians refused the application, and repudiated the responsibility of providing stations, although their clerk informed them that the duties of the medical officer were by the contract limited to performing the operation, and that nothing was said as to his providing a room.

We should be glad to know whether in the country this is the usual guardian mode of treating public vaccinators, who, instead of being mulcted in the rent, should rather be encouraged in opening stations in convenient situations. The Privy Council inspectors will take good care that they are not too numerous.

### SMALL-POX IN IRELAND.

In Queenstown, on the 13th inst., the American barque *Nereid* arrived in the harbour from Liverpool, with four of the crew suffering from small-pox. Medical aid was at once sent off, and the cases were admitted into the Queenstown Fever Hospital. There should certainly be placed a hospital ship in the harbour, whither such cases could at once be transmitted without danger of infecting others, as must be the case when sent to a hospital on shore. It appears the Admiralty had allowed an old transport for this purpose, but on examination it was found in such a rotten condition as to prevent any use being made of the gift.

In Belfast, four fresh cases have been admitted into the Belfast Union Hospital, but no deaths have taken place for several weeks in that institution.

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A GOOD EXAMPLE FROM THE COLONIES.—According to the *Canada Lancet* four medical gentlemen have been returned to Parliament at the late elections:—Dr. Baxter, for Haldimand; Dr. Bolter, for North Hastings; Dr. Wilson, for East Elgin; and Dr. Clarke, for North Norfolk. In another direction the example of our Canadian dependency is equally worthy of imitation at home; Dr. Jones of Port Perry, Dr. Lovett of Ayr, and Dr. Carbert of Orangeville, having been appointed associate coroners for the respective counties in which they practise.

# Correspondence.

"Audi alteram partem."

## SCIENTIFIC THERAPEUTICS.

*To the Editor of* THE LANCET.

SIR,—A reference by Dr. Wilks to some objections I had expressed to the general treatment of recent nephritis by purging and sweating, has brought from Dr. George Johnson a vigorous defence of those time-honoured measures, as applied to renal dropsy. In the treatment of albuminuria, especially of recent cases associated with dropsy, Dr. Johnson thinks it wise to promote by "well-selected means" the free action of the skin and bowels. The "well-selected means" include hydragogue purgatives and hot-air baths; and I have no doubt that in certain cases these remedies may be considered as rightly chosen. Dr. Johnson, however, does not solely rely upon these measures, but advises—and in this respect I most heartily concur with him—the free use of diluents, and a scanty diet. The difference of opinion between Dr. Johnson and myself appears to be limited to this. In the treatment of acute renal dropsy he relies mainly upon remedies addressed to the skin and bowels; I rely mainly upon remedies bearing directly upon the kidneys.

I wish it to be clearly understood at starting that my objection to repeated purging and sweating relates in particular to remediable or possibly remediable states. With the granular kidney, where the structure of the organ is irretrievably gone, the judicious use of purgatives and hot-air baths is often of great and constant service. I believe that in advanced granular degeneration with copious urine, a periodical hot-air bath often does more good than anything else. And when, as the result of simple nephritis or lardaceous change, the kidney has passed redemption, similar measures may be called for. Under any condition of renal disease, should uræmia press, it may be needful to use the most active purgatives, hot-air baths, and evacuants of every class. It is, of course, impossible to make invariable rules for variable cases. Treatment must shift with symptoms, and I am prepared on occasion to take Dr. Lettsom for my guide, and find both rhyme and reason in the practice which is associated with his name.

Thus guarded, I still maintain the general principle that recent inflammation of the previously healthy kidney, as manifested by albuminuria and dropsy, is more safely and more rationally treated by unirritating diuretics than by purging and sweating. A hot-air bath every other night, and a dose of compound jalap powder every other morning (extreme practice which I do not for a moment attribute to Dr. Johnson) used to be a not uncommon, but must unsuccessful, routine in renal dropsy.

The disease in question consisting essentially of a plugging of the renal tubes by morbid products, it is easy to believe that the mere passage of aqueous fluid may clear the channels and assist in the restoration of the gland—a salutary issue which will be obviously retarded by want of water in the secretion. Besides this, a general rule holds good in this disease that the urinary solids discharged in a given time increase with the quantity of urine. Therefore, whichever way we look at it, what increases the urine will do good; what diminishes it will, so far, do harm. Hydragogues and vapour baths undoubtedly, as a rule, make the urine more scanty. Dr. Johnson urges the evident superabundance of fluid in the tissues in these cases, and infers that the drain by the skin and bowels can be spared; but, on the other hand, it is a matter of common observation that the fluid thus abstracted, especially by sweating, is yielded at the expense of the urine rather than of the effusion. It forestalls the urine instead of draining the dropsy. Dropsical fluid often resists diaphoresis with extreme tenacity. The system is flooded, not by simple water, but by a highly saline and nitrogenised fluid, loaded with urinary elements. I presume that the solid constituents of this fluid play a more important part in the pathology of renal dropsy than the water in which they are dissolved. Our aim must, be not to abstract water, but to get rid of the excrementitious substances of which it is the inoffending vehicle. In clearing the system of these renal excreta, I think it must be admitted that a little urine is worth a great deal of sweat. Sweat, in health, as Dr. Parkes has recently shown, is nearly or quite destitute of nitrogen; and though in uræmia there is reason to believe that urea may escape by this channel, yet the kidneys afford a much more certain and liberal exit. Uric acid, so far as I am aware, has not been detected in sweat. The sweat, particularly of enforced perspiration, is, compared to urine, an exceedingly poor and watery fluid, and when the renal secretion is already greatly too scanty, it is probable that sweat is seldom worth the urine it costs. I may appeal to Dr. Johnson's own large experience, and ask him whether he has not observed the œdematous accumulations of renal disease to obey diuretics more readily than sudorifics. In recent nephritis, whenever the urine from any cause becomes more abundant, then almost certainly will the dropsy proportionally abate; with regard to perspiration the connexion is far less evident.

Against active and repeated purging similar objections may be urged, though no one would propose in these cases totally to exclude aperients. The fæces, according to Dr. Parkes, furnishes in health an exit for a quantity of nitrogen equal to about a tenth of that which leaves by the urine, though it is probable that in disease this proportion may be increased. With threatening uræmia, experience has shown that we may advantageously call upon this means of elimination; but I believe that repeated hydragogues are not beneficial—they should be sharp and seldom. When dropsy causes great distension anything which relieves the pressure may, probably by liberating the organs, help to re-establish secretion. We see something of this kind now and then after tapping for hepatic ascites, and it is quite possible that a diuretic effect may in renal disease now and then follow a drastic purge; but this is exceptional, and does not invalidate the general rule that hydragogues lessen the urine.

I am in the habit of treating acute renal dropsy by careful protection from cold, liquid but not innutritous diet, digitalis (a remedy under these circumstances of unequalled value), iron, and, after a time, in place of the digitalis, a less depressing diuretic, such as acetate of potass. With these measures we may keep drastics and vapour-baths as reserves for uræmia, in the confidence that they will seldom be required.

I refer, as Dr. Johnson has done, to results, fully allowing at the same time that I am less entitled than is he to speak from experience. I, however, have had especial opportunities of observing the disease in children, and I have learned to apply the method I have sketched with a general trust in its issue which I have not been able to accord to any other method of treatment.

Obediently yours,

Chesterfield-street, April 17th. W. HOWSHIP DICKINSON.

## ON THE TEMPERATURE OF THE BODY IN TETANUS.

*To the Editor of* THE LANCET.

SIR,—When bringing before the Clinical Society, in October last, a case of recovery from tetanus (see THE LANCET of Oct. 22nd), I drew attention to the fact that during a considerable period, and at a certain stage of the attack, the temperature of the patient, in addition to its being unusually high, was found to be augmented in the evening. I was thus led to offer the suggestion that possibly this thermal variation of temperature might be found to obtain generally or even universally in true tetanus. Since then I have had no opportunity of making further research as to temperature in this disease, but Dr. W. W. Keen, of Philadelphia, has sent me an account of a case of tetanus which was under his care* in St. Mary's Hospital in that city, in which, for several days during a portion of the illness, the evening temperature was markedly higher than in the morning. Dr. Keen gives a table showing the diurnal state of the pulse, respiration, and temperature,

* The *Medical Times* (Philadelphia), March 1st.

and observes that he does so in response to my suggestion above alluded to, and for comparison with other cases.

Encouraged by this timely contribution on the part of Dr. Keen, I am induced to ask such of the readers of your columns as may have to treat cases of tetanus, if they will have the goodness to note and record in your journal (or forward to me) the morning and evening temperature of such patients, with a view of testing the value of the suggestion. Especially, I suppose, might regularity of variation as to temperature be anticipated in those cases which, according to some observers, have more or less of an intermittent or periodical character. If variations are observed, it may be that fluctuations may exist which are peculiar to one or other form of tetanus. It would be a point of interest to inquire further upon what such variations depend; and a question to be asked whether they have any relation to such changes in the texture of the spinal cord as are found to have supervened during some attacks of fatal tetanus, by reason of the intimate connexion 'twixt the so-called sympathetic system and the spinal cord.

I am, Sir, your obedient servant,

Cavendish-square, April 19th, 1871. JOHN W. OGLE, M.D.

## THE SURGERY OF STRICTURE.

*To the Editor of* THE LANCET.

SIR,—I have just read, in your current number, the discussion, under this head, at the Clinical Society of London. It recalls a remark I have not infrequently made to my students: that, in estimating current surgical literature and polemics, it is necessary to bear in mind that fondness for fashions is not confined to young ladies.

Considering that the controversialists at the Clinical Society were amongst the leaders of modern surgery in the metropolis, I confess the report of their proceedings is scarcely flattering to national pride, or encouraging to scientific aspiration. The discussion about the relative value of elastic and metallic catheters and bougies is a very old tale; and when, twenty years ago, I was working through the hospitals of Europe to judge personally the merits of surgical authors and methods of practice, I came back with a very decided opinion that, in passing catheters and treating strictures, Frenchmen were nowhere, and Englishmen, with Robert Liston in the van, had settled the business. In Paris itself, upwards of thirty years ago, the discussion of the value of metallic *versus* elastic catheters and sounds, of good-sized instruments *versus* bristles, was carried on with characteristic vivacity; and anyone may learn some useful lessons who will read carefully in Mayor's Chirurgie Simplifiée, "Des principes fondamentaux du Cathétérisme," and succeeding chapters.

The vast majority of strictures yield most readily to progressive dilatation with metallic instruments in skilled and gentle hands. Steel sounds, well plated, are the best, on account of their smoothness and weight—the latter a very important quality.

A few words as to progressive dilatation. Assuming a stricture, which, to-day, will only admit No. 5 through it. Nos. 6 and 7 must be passed down at once as far as practicable. To-morrow probably 6 will go through with comparative ease, and then 7 and 8 must follow without delay to the point of obstruction, which rapidly yields; the narrow membranous tube gradually opening out in front of the advancing instrument, just as the glove-finger does in front of the stretcher when pushed along it. In passing urethral instruments, the patient ought always to be in the recumbent position; the instruments to be warm and very well oiled.

In cases of retention there is too much meddling with little instruments—too little reliance on the ease, to patient and surgeon, with which good-sized heavy instruments are passed, especially if they be allowed to find their way by their own weight, the index-finger of the right hand being merely held under the handle of the instrument, and gently shaking it, and elevating it at the proper time. Two well-known agents deserve a few words, because imperfect advantage is often taken of them—opium and hip-baths. The full narcotising effect of the former, carefully watched, induces a flow of urine in most cases of obstruction. As to the hip-bath, let the patient have a blanket folded at his back to rest comfortably, with the feet resting on a footstool to ensure thorough relaxation of all the muscles. The small quantity of water which these baths hold, and their vast extent of cooling metallic surface, render it necessary to remove part of the water every few minutes, and add more hot, a blanket being all the time over patient and bath.

Leeches in perinæo are only necessary in exceptional cases, but they are capable of doing a great deal of good. Emptying the bowels by copious warm-water injection is a measure not to be overlooked in all cases of retention presenting difficulty in the passage of instruments. The value of anæsthetics under such circumstances cannot easily be exaggerated.

The frequency of stricture of the urethra is much greater than is commonly supposed, and I feel confident that if the passage were more frequently explored, many men who say they pass water freely, will be found to admit only a No. 6. At this stage a cure is easy and rapid; once effected, symptoms referred to lumbago disappear, and the danger is averted of progressive narrowing to one of those very tight strictures, which so frequently imperil the patient's life and the surgeon's reputation.

These hints are mostly old, though none the less worthy of remembrance. Allowing for the necessarily abridged report at the Clinical Society already referred to, it almost appears as if we were in some danger of forgetting what is already known, in the race after *spécialités et nouveautés*—fashionable milliners' words, but not inapplicable. We need deeper and wider reading, and a little more faith in that clear, sound, male sense, which some time ago made British surgery the first in the world.

In personal discussions courtesy and forbearance cannot be too great; but in debating systems and the features of an epoch and a school, we want plain speaking, to expose fallacies and dispel phantoms which obstruct the clear view of great truths.—I am, Sir, your obedient servant,

Birmingham, April 10th, 1871. SAMPSON GAMGEE.

## SANITARY AFFAIRS IN TENTERDEN.

*To the Editor of* THE LANCET.

SIR,—You have frequently inserted in the columns of THE LANCET notices of inquiries held by the inspectors attached to the Medical Department of the Privy Council into the state of places supposed to be in a defective sanitary condition, and you have also remarked on the great good likely to accrue from such inquiries, in calling public attention to the law on the subject, and in inducing the local authorities to exert themselves to remedy proved defects. I scarcely remember any instance, except in the case of large towns, where you have reported upon the results actually obtained from the inspector's visit; I am induced, therefore, to try to supply this deficiency as far as regards my own parish, in which, with the assistance of the vicar, the Rev. J. W. Ramsey, I have been carrying on a sanitary fight with the authorities for the last four years.

Soon after settling in the parish, cases of typhoid fever came under my notice, and the most casual inspection revealed the existence, in an aggravated form, of all the conditions now known to be its cause. The inspector of nuisances was then an old man, and on his death, in 1867, the Board of Guardians of the Tenterden Union conferred the appointment on me, at a salary of £5 per annum. My duty was to report cases to the board, with whom the executive power rested. My reports, both special and general, were very frequent, with little practical results, as the board considered structural works were necessary, and held it was the duty of the vestry, as the sewer authority, to construct them. Vestry after vestry was called with no practical result. Once, in answer to an urgent appeal of mine, the board notified to the vestry that "if within a certain time the defects complained of were not remedied, complaint would be made to the Privy Council." The time elapsed, nothing was done, and then the board failed to fulfil their promise, although public attention had been drawn to it by its being affixed to the church door.

In 1867 Mr. Hardy's amended Act was passed, and then the board, only too glad of the opportunity, terminated my

appointment as inspector, under the plea "that all the duties formerly vested in them were relegated to the vestry." Consequently, for the next two years, the office was vacant; the cases of typhoid steadily increased till the autumn of 1869, when the maximum number of 26 was reached, entailing an expense of £30 on the parish. Vestries were still held, sanitary committees were appointed, inspections of the parish were made, and reports were drawn up, adopted by the vestry only to be ignored. At last, finding it perfectly hopeless to get any measures involving an outlay out of the vestry, I addressed a letter to the Local Government Office, asking if the board had rightly interpreted the amended Act. Six weeks passed, and no answer came. I then addressed a similar letter to Mr. Simon (copy enclosed). An answer came promptly enough, and letters were also sent to the vicar, requesting information as to the action of the vestry, and also to the Board of Guardians, ordering a sanitary report of the parish to be drawn up. The board therefore requested me to furnish one, and I at once set about it. The report I now send you, with plans of the village. After its reception in London, further communications to the vestry came from Mr. Simon, couched in peremptory terms.

Still nothing was done; and in the autumn of last year a more deadly enemy than fever invaded us; diphtheria broke out, thirty cases occurring, with fourteen deaths. Another urgent appeal of mine resulted in Dr. Thorne Thorne being sent down. His report I also enclose. The only result of his visit was the appointment by the board of an inspector, at a salary of £10 per annum, who found his hands tied just as mine had been tied previously.

To send you an account of all the vestry meetings held would be useless, save to illustrate the folly of the Legislature in entrusting such grave and life-preserving functions to bodies quite unable to appreciate their importance. I send a petition that was drawn up for presentation to the Home Secretary, as illustrating one phase of the struggle. It was not persisted in, as there seemed little chance of twenty householders being found to sign it.

At last we were passed over to the Local Government Office, and a notice of a public inquiry, to be held by Mr. Arnold Taylor, was posted all over the place. Mr. Taylor came, and was violently indignant with the inspector of nuisances that he was not at the appointed place to meet him; he rated him soundly, telling him he had been guilty of a gross dereliction of duty. Our hopes rose, and we began to think that, with an official who had such a high opinion of duty, the hoped-for end of the struggle was near. Mr. Taylor examined the vestry-books, walked round the parish, confirmed Dr. Thorne's report, and left, promising a report to the vestry as to what they would be required to do, and a private letter to one of the churchwardens, giving the name of an engineer who would give us an estimate, at a reasonable cost, of the outlay that would probably be necessary. No letter or report has ever come, and things remain practically just the same as they did four years ago when the struggle commenced. Nay, far worse, for the party of inaction have learnt they may set at defiance the threatened interference of the central authority; and I am disgusted and disheartened at the result of endeavours involving much anxiety, much personal labour, and in which I have incurred that odium which has always fallen to the lot of those whose evil genius prompts them to disturb the *status quo*.

In the meantime diphtheria has again broken out; four cases have occurred, with two deaths. I look forward with dread to the coming summer, and I ask, am I really to believe that the two inspections were, as far as regards their results, simply a farce? and if so, how comes it that public money is wasted on such futile and purposeless proceedings?—I remain, Sir, your obedient servant,

Rolvenden, March 27th, 1871. THOMAS JOYCE, M.D. Ed.

## THE LICENCE OF THE APOTHECARIES' SOCIETY.

*To the Editor of* THE LANCET.

SIR,—It must have struck many readers with surprise that the Committee of the Bristol Lunatic Asylum should have made the qualification of apothecary an essential one in every candidate for the vacant post of superintendent. It is not too late for them to reconsider this condition, and I think if they do so carefully, the result will be that they will cancel it. Far be it from me to attempt to throw discredit on the venerable qualification, for which I entertain the greatest respect; but the fact remains that there is a very large number of highly eligible men now devotedly engaged in lunacy practice whom this condition of the advertisement will exclude from the field of competition. To my knowledge the senior assistant medical officer of one of the largest and most famous of modern asylums is not allowed to apply for the vacant appointment because he is not an apothecary; although he is duly qualified as a surgeon, and a graduate of one of the most distinguished of our medical universities.

It cannot be pretended that the qualification in question is of special moment for the particular kind of duties. I could instance some of the most esteemed of our county asylum superintendents who are not apothecaries, and, if I mistake not, this remark would apply to the most revered of our Medical Lunacy Commissioners. The Committee of Visitors should surely desire the services of the ablest man they can get, and there is no reason why this man should not be the possessor of an apothecary's licence. But their limitation of the area of selection will certainly prevent some men of the highest qualifications and competency from applying; while at the same time it does not harmonise with that spirit of fairness and liberality which now happily prevails in the bestowal of nearly all similar medical appointments. The committee, by rescinding the condition, will not less vindicate their own character than take a praiseworthy step in the interest of the institution over which they preside.

I enclose my card, and am, Sir,

Your obedient servant,

M.D., M.R.C.S., L.S.A., &c.

*** It is possible that the demand for an Apothecaries licence may be simply due to an old bye-law, framed at a time when this licence was the ordinary medical qualification of an English practitioner, and to which attention has only to be called in order to obtain its revision in accordance with the state of things existing at the present day. But, on the other hand, it may be a means of giving an advantage to some candidate whose election has been predetermined; and in that case our correspondent will probably protest in vain. There can be no question that such a condition can rest only upon inadvertence, ignorance, or favouritism.—ED. L.

## IMPROVED SURGICAL BAG.

*To the Editor of* THE LANCET.

SIR,—For some years I have felt the desirability of possessing a convenient surgical bag capable of containing not only instruments required for any surgical emergency, but also those that are in daily use. The difficulty hitherto has been of two kinds—namely the size of the bag, and the facility of readily finding the instrument you require. Dr. Greenhalgh has fitted one of Messrs. Arnold and Sons' bags for obstetric purposes, and I have, after some thought, suggested to Mr. Arnold, of West Smithfield, who is the inventor of the bag, an interior arrangement by which every instrument can be immediately selected without disturbing the rest. This is made by a succession of wire trays, upon which the different cases are placed; the sides are fitted with loops to contain catheters, lithotrites, forceps, &c., and are always in view. The following list will show that in this *multum in parvo* there is almost everything that can be required in military or civil practice.

(1) A case containing two amputating knives, Butcher's amputating saw, and catlin. (2) A case containing 3 scalpels, 2 curved bistouries, a hernia knife, 2 lithotomy knives, 2 hare lip or tenotomy knives, probe, sharp-pointed pair of scissors, pair of artery forceps or tenaculum, pair of spring forceps, aneurism needle, double hook, and hernia director. (3) A case containing 3 cataract knives, Tyrrell's hook, 4 needles, silver curette and hook, Adam's eyelid retractor, set of Bowman's probes, Critchett's fine groove director, pair of cilia forceps, pair of iris forceps, and 2 pairs

of scissors. (4) Case containing complete set of Holt's dilators. (5) Tonsil guillotine in case. (6) Ophthalmoscope and laryngoscope combined in case. (7) A pocket case containing gum lancet, Syme's knife, finger knife, scalpel, dressing forceps, pair of scissors, silver caustic case, silver female catheter, probe, director, needles, exploring trocar, &c. (8) A case containing hydrocele trocar, trocar for paracentesis, half-ounce glass syringe with platinum point, and small bottle. (9) A case containing gum elastic catheters, Holt's india-rubber winged catheters, and folding needle-case. (10) A case for hare-lip pins, acupressure needles, probes, &c. (11) A hypodermic syringe in case. (12) Small chloroform bottle in wood case. On the two sides of the bag are—2 lithotrites, silver double-channel catheter, 3 short-beaked sounds, prostate catheter, 5 silver catheters (Nos. 1, 2, 3, 8, and 10), Ponteau's curved trocar for puncturing the bladder, folding rectum speculum, vagina speculum, probang, clinical thermometer, polypus forceps, epistaxis catheter, écraseurs, tooth forceps, tracheotomy tubes, rectum bougies, lithotomy forceps, lithotomy scoops, lithotomy staffs, tourniquet, &c.

The bag is perfectly portable, has two locks, and is of a size not to offend the eye, or to be inconvenient to carry. The instruments may of course be varied to suit the taste of the surgeon.—I am, Sir, your obedient servant,

Savile-row, April, 1871. BARNARD HOLT.

## A REQUEST.

*To the Editor of* THE LANCET.

SIR,—Will you permit me to state, through the medium of your pages, that having been requested to contribute a quarterly letter on the Progress of Psychological Medicine, Anthropology, and Medical Jurisprudence in this country to the *New York Quarterly Journal of Psychological Medicine*, edited by Dr. Hammond, I shall esteem it a great favour if gentlemen writing on these subjects will kindly forward to my address any memoirs, books, &c., that they may wish me to notice.

With regard to books, I must request it to be distinctly understood that they will be duly returned to their respective authors, and that they cannot be accepted as presentation copies.—I am, Sir, yours &c.,

GEORGE E. DAY, M.D., F.R.C.P.,
Late Professor of Medicine in the University of St. Andrews.

Furzewell House, Torquay, April 14th, 1871.

## HILL STATIONS IN INDIA.

*To the Editor of* THE LANCET.

SIR,—In a late number of THE LANCET you referred to some statistics by Dr. Ambrose which showed the good effect produced by a hill station on European troops in India. Although Dr. Bryden's figures on the health of the working parties in the Himalayas ought to have settled this question, it appears that there are still persons who doubt the desirability of locating European troops on elevated lands, and not on the plains of India. Every additional piece of evidence is of importance, and I therefore ask you to publish the following letter to me from Dr. Skeen, the Surgeon of the 85th Regiment, and the table enclosed with it. I have no doubt Dr. Skeen will excuse my making it public without his permission. The figures speak for themselves, and show in a very marked way how residence on the hills not only improves the health at the time, but continues to afford some protection for a considerable time afterwards.

I am, Sir, your obedient servant,

Netley, April 8th, 1871. E. A. PARKES.

Dugshai, 23rd February, 1871.

MY DEAR SIR,—About two years ago there was some newspaper war between two of the chiefs of the Department as to the effects of hill residence on the health of European troops in India. Having no personal knowledge of the matter, and with the view of acquiring an opinion of my own, I weighed the working party of the regiment proceeding to the hill station of Dalhousie in May, 1869, and a corresponding number of the men remaining at head quarters (Meean Meer).

On the return of the working party to the plains in November, I weighed again 100 men of both parties. The difference during the eight months was an average increase per man of twelve ounces in weight in the hill party, and an average loss of two pounds per man at head quarters. Ague was exceedingly prevalent in 1869, but the hill party in December were not attacked in any great degree.

In making up my annual report for 1870, I have again compared the admissions and deaths in the two parties, apparently with decisive results as to the benefit of the residence in 1869 in the hills of this individual party.

I remain, yours very truly,

Dr. Parkes. W. SKEEN, 85th Regiment.

*Comparison of the Effects of Hill Residence on the Health of a Working Party of the 85th Light Infantry with that of the remainder of the Regiment at Meean Meer in* 1869.

| | Difference in Weight in 8 months per man. | Admissions at Hospital from Ague during December, 1869, when the men had returned from the hills. | |
|---|---|---|---|
| Dalhousie working party ... | Increase = 12 oz. | 7·8 per cent. | 100 men of the working party and 100 men of the remainder at Meean Meer were weighed in March before the working party left, and again on their return to station quarters in November. |
| Remainder of regiment at Meean Meer. | Decrease = 2 lb. | 50·8 per cent. | |

*Health of the Dalhousie Working Party of* 1869 *during the year* 1870 *at Meean Meer compared with that of the remainder of the Regiment during the same period and at the same station.*

| | Strength. | Admissions. From all causes. | Admissions. From Ague and Fevers. | Percentage. From all causes. | Percentage. From Ague and Fevers. | Deaths. No. | Deaths. Rate per 1000 per annum. | November. Strength. | November. Attacked by Ague. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Dalhousie working party of 1869. | 138 | 237 | 141 | 171·8 | 102·1 | 0 | 0·00 | 111 | 11 = 10·0 per cent. | November has been during the residence of regiment at Meean Meer the most sickly month as regards ague. |
| Remainder of regiment on the plains for 2 years. | 380 | 1460 | 1093 | 384·2 | 287·6 | 17 | 44·73 | 295 | 95 = 32·2 per cent. | |
| Draft from England, arrived 5th May. | 98 | 149 | 84 | 182·4* | 102·8* | 2 | 24·00 | 87 | 26 = 30·0 per cent. | |

* For 12 months.

The hill party was composed of men who had suffered in health in 1868 from ague and typhoid fever.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

I HAVE to inform you that Professor Oppolzer, Professor of Special Pathology and Therapeutics in the University of Vienna, died on Sunday afternoon last, the 16th inst., of typhus exanthematicus, after an illness of a week's duration. His death has thrown a deep gloom over Vienna, and over all connected with the medical school. He was lecturing in his new wards in which he succeeded Professor Skoda, as late as last Tuesday. Vienna has thus lost within a month its two most distinguished clinical teachers

of medicine. As to who will fill Oppolzer's vacant chair nothing is as yet known.

Professor Liebermeister, of Zurich, has been "called" to the post vacant by the lamented death of Professor Niemeyer, at Tübingen.

Vienna, April 17th, 1871.

# Obituary.

## CHARLES HOUSLEY, M.R.C.S.,

OF PORT ELIZABETH, CAPE OF GOOD HOPE.

WE record, with the same regret that will be felt in his adopted country, the death of Mr. Charles Housley, of Port Elizabeth, South Africa, where he had for some years resided. He received his education at Merchant Taylors' School, and commenced his medical studies at Wakefield, in Yorkshire, in the house, we believe, of Mr. Horsfall, where he was the companion and fellow-student of the late Mr. Milner, the Medical Superintendent of the Wakefield Convict Establishment. On the conclusion of his apprenticeship Mr. Housley continued his studies in London, and passed the College and the Hall in the year 1837-8, after which he entered her Majesty's service as a naval surgeon on board the *Medea*, and served in that capacity during a cruise on the coast of North America. He then quitted the sea, and began to practise at Mitcham, in Surrey, but soon left the country and settled himself in London, where he remained until the commencement of the Crimean War. On the formation of the Army Works Corps, Sir Joseph Paxton, with whom he had long been on terms of intimacy, recommended him to fill the post of medical superintendent of the corps, and having obtained the appointment, he remained in the Crimea, at his duty, until the capture of Sebastopol and the close of the war enabled him to return to England. He again established himself in London, first in Manchester-street and afterwards at Haverstock-hill; but hearing that there was a demand for a medical man at Port Elizabeth, he determined upon emigrating to the Cape, where he finally settled in the year 1858. There Mr. Housley soon ingratiated himself, and obtained a good practice. He was made surgeon to the Volunteer Artillery, and was also elected one of the surgeons to the Provincial Hospital; he frequently had the charge also of her Majesty's troops when stationed at Algoa Bay.

About four years since, when in the midst of his professional work, he first felt symptoms of declining health, and became aware himself that he was suffering from diabetes, to which was added distressing abdominal pain whenever he took any unusual exercise. This was greatly increased by a long journey into the country, which he was compelled to make in what is called in the colony "the cart." Notwithstanding his illness, he persevered in his professional duties until the beginning of this year, when, feeling a sudden decrease of physical power, and finding that pulmonary mischief was added to his other maladies, he determined upon coming to England in order to consult with his old professional friends. After his arrival in London, in the early part of February, the severity of his symptoms seemed somewhat to have abated; nevertheless he continued gradually to decline, until Friday, April 14th, when he calmly sank to his final rest. Dr. Richardson attended him in conjunction with Dr. Garrod to the end of his illness, at the house of his nephew, Mr. S. J. Housley, with whom he had resided during his brief stay in England. When in good health Mr. Housley was vigorous, both mentally and bodily; he was a genial and warm-hearted man, fond of his professional work, and devoted to the best interests of medicine. He was married to a daughter of the late Mr. Tipple, of Mitcham, and had three children, two only of whom, a son and a daughter, with Mrs. Housley, survive him. He was in his fifty-fifth year when he died.

## CHARLES EDWARD VERLING GOATE, M.D.

DR. GOATE died at Coventry, on the 15th inst. He was an intelligent, active, most indefatigable practitioner, a good surgeon, and able physician. On resigning the post of medical officer to a large district in the Ledbury union he obtained the unusual distinction of receiving a testimonial from the board of guardians in recognition of his assiduous attention to the poor. He obtained the esteem and confidence of his private and pauper patients alike, working day and night without ever taking a holiday; few men have worked harder. Contracting typhus fever from a patient, he still worked on up to Sunday, the 9th inst., took to his bed on Monday, became quite unconscious on Wednesday, and sank at 5 A.M. on Saturday, the 15th inst.

# Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — At an extraordinary meeting of the College on April 17th, the following gentlemen, having conformed to the bye-laws and regulations and passed the required examinations, were granted licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Branfoot, Arthur Mudge, M.R.C.S., Guy's.
Clayton, Robt. Palmer, M.R.C.S., Broughton-lane, Manchester.
Dayman, Barnfield, M.R.C.S., Jewin-crescent, Aldersgate.
Garratt, William, M.R.C.S., Asylum-road, Old Kent-road.
Gramshaw, Henry, M.R.C.S., Ampthill.
Hamilton, Andrew, L.S.A., Whitley, Reading.
Hicks, John Sibley, L.F.P.S. Glas., Erskine-street, Liverpool.
Hood, Donald Wm. Charles, M.R.C.S., Guy's.
Jay, William Eugene, Willunga, South Australia.
Lloyd, T. Llewellyn, M.R.C.S., Infirmary, Burton-on-Trent.
Lovell, Francis Otley, M.R.C.S., St. George's.
Palmer, James Foster, M.R.C.S., Sloane-street.
Pearce, Joseph Chaning, M.R.C.S., London.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — At a meeting of the Council on April 14th the following Members were admitted Fellows of the College:—

Bradford, Edward, Harrow.
Brookes, William Penny, Much Wenlock.
Keate, Henry, Shrewsbury.

The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on April 18th and 19th:—

Addy, Bousfield, Southport.
Batchelor, F. C., L.R.C.P. Edin., Brixton-hill.
*Blyth, Louis G., L.R.C.P. Edin., Weston-super-Mare.
Bonser, John H., Sutton-in-Ashfield, Notts.
*Boreham, William T., L.R.C.P. Edin., Cantley, Norfolk.
Burroughs, G. E. E., L.K.Q.C.P. Irel., Littlehampton.
Chisleti, Francis H. O., Kingsland-road.
Coomber, Francis, Enniskillen.
Drew, Henry W., L.R.C.P. Edin., Cape of Good Hope.
Drew, William T., L.S.A., Stow-on-the-Wold, Gloucestershire.
Haines, Alfred H., L.S.A., Notting-hill.
Holmes, Robt. A. K., M.D. Queen's Coll. Irel., Cough, Co. Tyrone.
Ker, Hugh B., Tipton, Staffordshire.
Lycett, John Allan, Scarborough.
Maybury, Horace M., Frimley, Surrey.
Munro, David, M.D., Ontario, Canada.
Nicholl, David C., Carmarthen.
Parry, Thomas W., L.R.C.P. Edin., Carnarvon.
Pellerean, George E., Mauritius.
*Pritchard, Richard H., L.S.A., Treborough.
Riston, Henry, Stretford, near Manchester.
Rose, William, L.S.A., High Wycombe.
Russell, William, L.S.A., Walworth.
Smith, G. J. Malcolm, Edinburgh.
Stamford, William, L.S.A., Swindon.
Stiles, Edward M., Chippenham, Wilts.
Strafford, Thomas, Ripley, Derbyshire.
*Turner, William M., L.S.A., King's-road, S.W.
*Wharry, Charles J., L.S.A., Woolwich.

* Passed in Surgery at previous meetings of the Court, and, having since obtained medical qualifications recognised by the College, were admitted Members.

Seven other candidates were examined on the above days, but failed to satisfy the Court, and were referred back to their hospital studies for a period of six months.

(In the primary examination list published last week the name "D. Protheroe" should have been "D. Protheroe Saer.")

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 13th:—

Atthill, Robert Chapman, Stoke Newington.
Bishop, William, Chipping Norton.
Eager, Thomas Cawley, Ripley, Surrey.
Head, William Cave, Lewes, Sussex.
Healey, Thomas St. Clair, Hull.
Latimer, Henry Arthur, Plymouth.

**As Assistant in Compounding and Dispensing Medicines:—**
Brunton, Lucius William, Clifton, Bristol.

**The following gentleman also on the same day passed his first professional examination:—**
Chambers, Eber, St. Bartholomew's Hospital.

COLLEGE OF PHYSICIANS, IRELAND.—At examinations on the 11th, 12th, and 13th inst., the following gentlemen obtained the licences in Medicine and Midwifery:—

LICENCE IN MEDICINE.—Samuel William Browne, John Vere Charles Denning, Thomas Atkinson Elias, Cuthbert Fetherstonhaugh, Thomas Augustus Kennedy, Edward Levinge, Ross Ferrier Maguire, Richard Charles Mason Pooley.

LICENCE IN MIDWIFERY.—John Vere Charles Denning, Thomas A. Elias, Thomas Augustus Kennedy, Edward Levinge, Ross Ferrier Maguire, Richard Charles Mason Pooley.

WELL-TRAINED MUSCLES.—The directors of the Polytechnic Institution profess to combine instruction with amusement, and we think successfully; but the entertainment now provided for visitors is most remarkable as affording examples of the surprising results which careful and prolonged training has on the muscles of the human body. A remarkable performance on the slack wire serves to show the precision to which the art of balancing the body without the aid of a pole, and therefore by muscular effort only, can be carried. A performance by a German on sixteen drums, with an unlimited number of drum-sticks, is a good illustration of rapid and dexterous adaptation of muscular effort to the object in view; and the performance certainly justifies the two former, if not the last, of the epithets in the programme which speaks of the "astonishing, vigorous, and harmonious performance." But the most surprising muscular effort is that of a lady who represents statues in white marble, being successively posed in various statuesque attitudes with her skin and drapery appropriately whitened. What struck us most was the absolute rigidity with which the performer maintained by no means easy attitudes with one or both arms extended; the perfect immobility of the bust, too, was very remarkable. That this fixity was not due to artificial aids was shown by the sudden transformation of the last of the statues into a living woman, even if any doubt had arisen on the subject before, which was not the case. We could wish that the secret of such steadiness of limb were transmissible to some of our professional brethren, whose chirurgical hands occasionally evince an unsteadiness in trying moments in some of our hospital theatres.

BEQUESTS, DONATIONS, &c.—Miss Brackenbury has signified her intention of giving the sum of £10,000 for the establishment of a medical school in connexion with Owens College, Manchester. "W. D. P." has, for the third time, given £1000 to the Royal Hospital for Diseases of the Chest. "E. G." has given £1000 to the Metropolitan Free Hospital. "T. R. C." has made a third donation of £1000 to the Royal London Ophthalmic Hospital. The Queen's Hospital, Birmingham, has received £1000 under the will of Alfred Evans, Esq. Abraham James Nisbet Connel, M.D., bequeathed £500 to the Royal Bucks Infirmary. Mrs. Martha Bless Pugh bequeathed £500 to the Royal Sea-Bathing Infirmary, Margate; and £100 each to the London Fever Hospital, the Samaritan Society, St. Thomas's Hospital, and the Royal Medical Benevolent College, Epsom. James Ross, Esq., late of Kingstown, Ireland, has bequeathed £200 to the Hospital for Incurables; £100 to the Adelaide Hospital; £200 to the Hospital for Convalescents, Stillorgan; and £100 to the Idiotic and Imbecile Asylum at Lucan. Miss Ward and Miss Charlotte Ward have given £100 each towards the erection of new fever wards at the Royal Isle of Wight Infirmary, Ryde.

# Medical Appointments.

BADCOCK, L. C., M.D., M.R.C.S.E., has been appointed Medical Officer for the Western District of the Parish of Brighton.

BARKLEY, W., L.D.S.R.C.S.E., has been appointed Dentist to the Worcester Infirmary.

BENSON, J. H., M.R.C.S.E., has been appointed Medical Officer for the Uley District of the Dursley Union, vice J. Hall, L.F.P. & S.Glas., resigned.

BROCKLESBY, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Osbournby District of the Sleaford Union, Lincolnshire, vice F. M'Nair, M.R.C.S.E., resigned.

BROWN, P., M.D., has been appointed Medical Officer and Public Vaccinator for the Ryton District of the Gateshead Union, Durham, vice J. I. Atkinson, M.R.C.S.E., resigned.

BURNES, Mr. H. F., has been appointed Dispenser to the Metropolitan Hospital, Stockwell.

CARVER, C. H., M.R.C.S.E., has been appointed Medical Officer for the Enfield Highway District of the Edmonton Union.

CLARKMONT, C. C., M.R.C.S.E. (Special Certificate for Vaccination), has been appointed Public Vaccinator for the Parish of St. Pancras, it having been determined by the Guardians (with the consent of the Poor-law Board) to appoint one Public Vaccinator for the Parish instead of six as heretofore.

COLE, T., M.D., L.R.C.P.L., M.R.C.S.E., has been elected an honorary Physician to the Royal United Hospital, Bath, vice R. W. Falconer, M.D., F.R.C.P.L., resigned.

DUNCAN, J. M., M.D., F.R.C.P.Ed., has been elected a Consulting Physician to the Royal Hospital for Sick Children, Edinburgh.

EAGER, R., M.R.C.S.E., has been appointed a Consulting Surgeon to the Royal Surrey County Hospital, Guildford, on reigning as Medical Officer.

FOOT, A. W., M.D., F.K.Q.C.P.I., has been appointed a Physician to the Meath Hospital, Dublin, vice A. Hudson, M.D., F.K.Q.C.P.I., resigned.

FORSHALL, F. H., L.R.C.P.L., M.R.C.P.Ed., has been appointed Medical Officer for the Highgate District of the Edmonton Union.

GERRE, G., M.R.C.S.E., has been appointed Medical Officer for the Eastern District of the Parish of Brighton.

GENT, G., L.S.A.L., has been appointed Medical Officer for the Piddington District of the Bicester Union, Oxfordshire.

HUNTER, Dr. R., has been appointed Admiralty Surgeon and Agent for Lame, vice Logan, resigned.

MAIN, A. J., M.D., L.R.C.S.Ed., has been appointed Medical Officer for the Lesbury District of the Alnwick Union, vice T. Pender, L.R.C.S.Ed., deceased.

MALE, H. D., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Lincoln County Hospital, vice G. Hett, resigned.

MATTERSON, W., M.D., M.R.C.P.L., has been elected Consulting Physician to the York Lunatic Asylum, Bootham, vice Caleb Williams, M.D., M.R.C.P.I., resigned from ill-health.

MILLSON, G., L.R.C.P.Ed., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Scarborough Dispensary and Accident Hospital, vice T. J. Denton, M.D., L.R.C.S.Ed., resigned.

MOSS, J. W., M.R.C.S.E., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Cheetham District of the Prestwich Union, Manchester.

ORR, J., M.D., L.R.C.S.Ed., has been appointed Resident Assistant House-Surgeon to the East Dispensary, Liverpool, vice Alex. F. Mancor, L.R.C.S.Ed., resigned.

OSTON, F., B.A., M.D., has been appointed Medical Officer and Public Vaccinator for the Hornsey District of the Edmonton Union, vice B. Hands, F.R.C.S., resigned.

REYNOLDS, J. S., M.D., L.R.C.P.I., M.R.C.S.E., has been appointed a Resident Medical Officer for the Redland Branch of the Clifton Dispensary, vice T. O. Mayor, M.R.C.S.E., resigned.

RICHARDS, D., M.R.C.S.E., has been appointed Medical Officer *pro. tem.* for the Brighton Workhouse and Infirmary.

ROSS, J. H., M.R.C.S.E., has been appointed Medical Officer for the Northern District of the Parish of Brighton.

SEWELL, J. J., M.R.C.S.E., has been appointed Medical Officer for the Central District of the Parish of Brighton.

SNELL, Mr. S., has been appointed Assistant Resident Medical Officer at the Leeds General Infirmary, vice Mr. F. H. Drake, resigned.

THURSTON, W. F., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Bow and Colebrooke Districts of the Crediton Union, Devon, vice S. Staniland, M.R.C.S.E., resigned.

TURNER, H., M.R.C.S.E., has been appointed Resident Physician's Assistant at the Middlesex Hospital, vice Humphreys, whose term has expired.

WILKINSON, T. M., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed House-Surgeon to the Lincoln General Dispensary, vice H. D. Male, resigned.

# Births, Marriages, and Deaths.

## BIRTHS.

GILCHRIST.—On the 17th inst., at George-street East, Saville-row, Newcastle-on-Tyne, the wife of Dr. Gilchrist, of a son.

MURCHISON.—On the 11th inst., at Wimpole-street, the wife of C. Murchison, M.D., F.R.S., of a son.

PEARSE.—On the 15th inst., at Botesdale, Suffolk, the wife of A. Pearse, M.D., of a daughter.

WHITLING.—On the 7th inst. (Good Friday), at Croydon, the wife of H. Townsend Whitling, Esq., of a son.

## MARRIAGES.

LUNDY—MILLER.—On the 11th inst., at St. Stephen's, Shepherd's-bush, Louisa F. Lundy, M.R.C.S.E., of Feltham, to Margaret Caroline, daughter of Robert Miller, Esq.

PEARLESS—HARRISON.—On the 12th inst., at the Church of the Holy Trinity, Rochampton, Charles Durrant Pearless, L.R.C.P.L., M.R.C.S.E., of the Vicarage, Sevenoaks, third son of Wm. Pearless, Esq., of the Hermitage, East Grinstead, Sussex, to Louisa Blanche Maud, the younger daughter of Wm. Harrison, Esq., of Ellenborough House, Rochampton, and Plaw Hatch, East Grinstead.

## DEATHS.

HOUSLEY.—On the 14th inst., at Boundary-row, N.W. (the residence of his nephew), Charles Housley, M.R.C.S., of Port Elizabeth, South Africa, in the 55th year of his age.

JAY.—On the 8th inst., at Acle, Norfolk, Joseph Tillett Jay, M.R.C.S.E., aged 56.

JACKSON.—On the 10th inst., Thomas Jackson, M.D., of Hull.

MORGAN.—On the 5th inst., at Pontyfrân, near Brecon, Richard Morgan, M.R.C.S.E. (not practising), of Abercrombey House, near Aberdare, aged 37.

MURRAY.—On the 16th inst., at Forest-hill, Thomas Douglas, only son of John Murray, M.D., of Wickham, Hants.

# MEDICAL REFORM.

*To the Editor of* The Lancet.

Sir,—The Committee of this Association, thinking the accompanying correspondence of interest to the profession, instructed us, at a meeting held to-day, to forward a copy to you, with the request that you would publish it in your journal. We are, Sir, yours, &c.,

James Hardie, } Hon. Secs.
C. H. Braddon, }

Manchester Medico-Ethical Association,
April 17th, 1871.

*To the Editor of the British Medical Journal.*

Manchester Medico-Ethical Association,
March 17th, 1871.

Sir,—At a meeting of the Committee of the Medico-Ethical Association of this city, held yesterday, the leading article in the *British Medical Journal* of the 11th instant was read. In reply to this and several others which have recently appeared in the *Journal*, we were requested to communicate to you the sense of this Committee on the subject which they have reference to. We, therefore, wish to say that this is largely in favour of The Lancet Bill, or even of measures more advanced than it makes provision for. We have already passed resolutions approving of it (*vide* The Lancet, Dec. 31st, 1870), and are of opinion that at least nothing less should be contended for by the profession.

We have watched with much regret, and we may say—seeing that the majority of our Committee are also members of the Association—with much chagrin, the procedure of the Committee of the British Medical Association on this question. When the proper time has come to do so, we intend to petition in favour of The Lancet Bill, and in other ways do our best to promote its progress.

The insertion of this in next week's *Journal* will oblige.

We are, Sir, yours, &c.,

James Hardie, } Hon. Secs.
C. H. Braddon, }

Office of the *British Medical Journal*,
37, Great Queen-street, London, W.C.,
March 21st, 1871.

My dear Sirs,—I am in receipt of your letter, informing me that some members of the Association, being also members of the Committee of the Manchester Medico-Ethical Association, are disposed to censure the course of the Medical Reform Committee of the British Medical Association.

That Committee is a Committee appointed by the Association at its annual general meeting. It has been the subject of grave misrepresentations by the journal to which you refer. Allow me, therefore, to suggest that, in justice to yourselves, and in justice and courtesy to the Committee, who have given so much time and labour, and made such serious sacrifices in carrying out a Commission entrusted to them by the Association in the interests of the profession, it will be a proper course, if you think their conduct of affairs open to disapproval, that you should at a meeting of the Branch of the Association in your county bring forward that opinion, and have it discussed in the presence of those of them who belong to your Branch, where they may state their reasons before yourselves and your fellow-members.

Yours is the first communication which I have received of the kind. I will take care, if you will give me notice, that the proceedings are fully and fairly reported.

If you should make any public use of the letter which you have addressed to me, I must request you to secure at the same time the same publicity for this answer. I am, dear Sirs, faithfully yours,

The Editor of the British Medical Journal.

Manchester Medico-Ethical Association,
33, King-street, March 25th, 1871.

Dear Sir,—In sending you our previous communication, we simply carried out a resolution of the Committee of this Association in our official capacity, and stated parenthetically, by the express desire of the Committee, that the majority of its members were also members of the British Medical Association. No resolution passed at any meeting of a Branch of the latter can in any way affect resolutions of the Medico-Ethical Association, and we must, therefore, ask you again, in common fairness, to publish our letter. You declare that The Lancet Bill has received no support from the profession. We reply that we, an Association expressly interested in matters of medical polity, and not only so, but composed for the most part of members of the British Medical Association, support the Bill, and condemn that of the Committee of the Association. We consider that you are in honour bound to give equal publicity to this rejoinder.

To refer for a moment to the fact of our being members of the British Medical Association. We presume that a criticism of the Bill of the latter by any individual member would be admissible in the *Journal*. Why, may we ask, should not one by a number of members conjointly?

We are, dear Sir, yours faithfully,

James Hardie, } Hon. Secs.
C. H. Braddon, }

*British Medical Journal* Office,
37, Great Queen-street, W.C.,
March 22nd, 1871.

My dear Sir,—In order to leave no room for misapprehension, I wish to add to my communication of yesterday, that should you object to submit the opinion expressed in the letter signed by yourself and Dr. Braddon to the test of professional debate, where it can be fairly discussed, as I have ventured to suggest in the letter, and should you wish the censure which your letter describes published in the *British Medical Journal*, I must ask you for the particulars of the meeting as recorded in the minutes, and the names of those present at it. I would also ask for a more explicit statement in what respect the Committee complain of the conduct of the Committee of the British Medical Association, and whether they gave Mr. Southam, a member of the Committee residing in Manchester, any opportunity of explaining matters before the Society before they passed the authorisation for such a letter, and whether they propose to do so.

I am, dear Sir, faithfully yours,

The Editor of the British Medical Journal.

Dr. Hardie, Secretary, Manchester Medico-Ethical Association.

Manchester Medico-Ethical Association,
33, King-street, March 27th, 1871.

Dear Sir,—Owing to insufficiency of address, your last letter did not come to hand till yesterday, after ours of the 25th was dispatched.

In reply to the most unusual request which it contains, that we should send particulars of our meeting as recorded in the minutes, and the names of those present at it, as a condition of publication of our first communication, we have to say that we have no instruction to furnish you with such particulars, and, in the absence of any apparent reason for your requesting them, cannot undertake to do so without the sanction of the Committee.

You also ask in what respect we complain of the conduct of the Committee of the British Medical Association. Shortly we may say in this respect: We believe that this Bill does not embody the wishes of the profession generally, or of the members of the Association, particularly as regards the representation of the general profession in the Medical Council. That The Lancet Bill does do so to as large an extent as is possible at present, and that in its main provision, and even its details, it is altogether excellent. We are, therefore, annoyed that the Committee, representing as they do an Association composed chiefly of the general body of the profession, and capable of exercising such an important political influence, should not only have neglected to have recognised the progress of opinion in the profession of late, but have raised a stumbling-block to the progress of a measure so well calculated to give effect to this opinion.

Mr. Southam was not invited to attend any of our meetings.

We are, dear Sir, yours faithfully,

James Hardie, } Hon. Secs.
C. H. Braddon, }

Office of the *British Medical Journal*,
37, Great Queen-street, London, W.C.,
March 30th, 1871.

My dear Sirs,—I have only to repeat that if you will furnish me with copies of the resolution or minute referring to the subject of your letter, and with the names of the mover and seconder of the resolution, and of the gentlemen present, I shall be most happy to publish them if you desire it. I am unable to appreciate the reasons for withholding them, and without them it seems to me that no publication on the subject would have any value. I am, dear Sirs, faithfully yours,

The Editor of the British Medical Journal.

Manchester Medico-Ethical Association,
33, King-street, April 4th, 1871.

Dear Sir,—At a Committee meeting of the Association held to-day, the recent correspondence between yourself and us was read, when the accompanying resolution was adopted, and we were requested to send you a copy of the same. Faithfully yours,

James Hardie, } Hon. Secs.
C. H. Braddon, }

*Copy of Resolution.*

"That the letter addressed by the Hon. Secs. to the Editor of the *British Medical Journal* on the 17th ult. fairly represents the feeling of the Committee, which requested such communication to be sent; and now, after having heard the correspondence between them and the Editor of the *British Medical Journal*, this Committee regret that the latter gentleman should, after refusing insertion to that communication, take refuge in a demand so unusual as the publication of the names of the gentlemen present at the meeting. That the Committee further requests the Hon. Secs. to forward the communication as an advertisement if its publication cannot be otherwise obtained."

Office of the *British Medical Journal*,
37, Great Queen-street, London, W.C.,
April 5th, 1871.

My dear Sirs,—I have to acknowledge the receipt of your letter of April 4th, and to refer you to my former communications, and to the notice in last week's *Journal*, which will apply equally to the case.

I never before heard of any gentlemen passing resolutions for publication in a public paper, and on a public subject, and withholding the names of the mover and seconder, or of those present who passed them. When such resolutions are resolutions of censure, it seems to me not only unprecedented, but totally indefensible.

It is one to which I cannot be a party. I adhere to my former decision, which governs the publication of this as well as of your former resolution, to which it is only a rider.

And I am, my dear Sirs, faithfully yours,

The Editor of the British Medical Journal.

Manchester Medico-Ethical Association,
33, King-street, April 10th, 1871.

Dear Sir,—In closing this correspondence, we wish to point out how untenable are the grounds on which you base your reasons for suppressing our communication. Had the resolution we passed been that of an open or public meeting, or of a number of persons belonging to no corporate society, or even of a number of members of the British Medical Association, it would have been quite proper that the names of those present should have been published. Without this, indeed, any resolution would have been valueless. When, however, a resolution is passed by the Committee of an established Association, issuing an annual report, containing the names of its office-bearers, such information is unnecessary and superfluous, inasmuch as the resolution is recognised by the whole Committee, which is responsible only to the Association, and becomes its act. If anyone wishes to know who compose the Committee, he may get his information by referring to the report. A copy of our report is forwarded annually to the Editors of the medical journals.

We have frequently had occasion to forward resolutions of our Committee

to the journals for publication, but never before were met with such objections as you now adduce.

We are, dear Sir, yours sincerely,
JAMES HARDIE, } Hon. Secs.
C. H. BRADDON, }

Office of the *British Medical Journal*,
April 13th, 1871.

DEAR SIR,—I have to protest against the misuse of the word "suppress" in your letter. To append a condition to the offer of publication is not to suppress. As to whether the condition which I make—that of the publication of the gentlemen present—be reasonable or not, I have the misfortune still to entertain an opinion opposite to that which you express.

The information contained in the *brochure* to which you refer is accessible only to a few, and, if accessible to all, would still fail to show to those reading your letter who or how many are the gentlemen who were present when the first resolutions were passed, or what weight these resolutions shall carry.

Dear Sir, faithfully yours,
ERNEST HART.

*** The foregoing correspondence tells its own tale so completely that it hardly needs comment. The absurdity of the demand for the names of mover and seconder, under the circumstances of the case, is apparent; and it would have been almost better to have avoided making any excuse for the suppression of the resolutions than to have made one so lame. The incident is altogether instructive, since it shows, as we have always maintained, that the Association as a body has no sympathy with the little schemes of its Committees, and it shows also that these Committees employ their opportunities of printing in order to promote their own views, not those of the Association.—ED. L.

# Medical Diary of the Week.

## Monday, April 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Dr. Douglas Powell, "On some Cases of Obstructive Mitral Disease."—Mr. C. F. Maunder will show Patients having good use of Triceps Muscle after Excision of the Elbow; cause demonstrated by Dissection. — Mr. W. Adams, "On Subcutaneous Section of the Neck of the Femur."

## Tuesday, April 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. Pengelly, "On the Geology of Devonshire, especially of the New Red Sandstone System."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY. — 8½ P.M. Mr. Jonathan Hutchinson, "On a Series of Cases in which Chancres have been caused by Vaccination."—Dr. Elam, "On Partial Acute Idiopathic Cerebritis."

## Wednesday, April 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
HUNTERIAN SOCIETY.—8 P.M.

## Thursday, April 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 12; other Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Sound."

## Friday, April 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON. — 8½ P.M. Dr. Greenhow, "On Diphtherial Paralysis treated by Galvanism." — Dr. Gull, "On a Case of Accumulation of Hair in the Stomach." — Dr. Henry Thompson, "On a Case of Diabetes treated with Opium."—Mr. Cooper Forster, "On a Case of Naso-Pharyngeal Polypus."
ROYAL INSTITUTION. — 9 P.M. Prof. Odling, "On the revived Theory of Phlogiston."

## Saturday, April 29.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 P.M. Mr. Lockyer, "On the Instruments used in Modern Astronomy."

# Notes, Short Comments, and Answers to Correspondents.

### VACCINATION IN SCOTLAND.

THE Registrar-General of Scotland has just issued his Sixth Annual Report on Vaccination, showing that of 113,441 children whose births were registered in 1869, 87·5 per cent. were successfully vaccinated, 8·8 per cent. died before they could be vaccinated, and 2·4 per cent. had either removed from their respective districts before the period allowed by the Act for their vaccination had expired, or were otherwise unaccounted for. Taking only the number of children surviving at the age for vaccination as the basis of calculation, it appears that 96 per cent. were successfully vaccinated, 2·7 per cent. escaped the operation by removal or otherwise, 0·9 per cent. had their vaccination postponed, and the remaining 0·4 per cent. were found insusceptible. The Registrar-General urges that the six months allowed by law to elapse between birth and vaccination should be shortened to three or four months, so as to enable the registrars to lay hold of a large proportion of the class who now escape by removal to other districts. He observes that the migratory habits of the parents of this class make them most dangerous to the community, inasmuch as they are the frequent means of carrying small-pox from town to town. Why the limit of age should be three months under the English and six months under the Scotch Vaccination Acts, is a question which the wisdom of our law-makers may possibly be equal to answering. We should say off-hand that the explanation is simply this, that legislation for the United Kingdom has hitherto proceeded on the principle that the requirements of England, Scotland, and Ireland, even in so comparatively small a matter as the age at which babies should be vaccinated, must in the nature of things be diverse. One of these days the conviction may penetrate St. Stephen's that, as regards all essential particulars, the prevention of disease may with advantage be conducted on a uniform basis throughout the United Kingdom. Notwithstanding the strongest tendency of small-pox to become epidemic in Scotland last year, the fatal cases are estimated at less than 150—a result which is attributed to the successful working of the Vaccination Act. And hence it is that the Scotch Registrar-General feels himself justified in administering a severe lecture to the people of England, who he says are suffering a fearful penalty for the ignorance and imaginary fears which have so much limited the beneficent influence of vaccination. As to the danger of vaccination, it is pointed out that in the latest year (1868) for which the causes of death in Scotland have been abstracted from the registers, only 2 children were recorded as having died from the consequences of vaccination out of 106,181 children vaccinated that year, or 1 in 53,190.

*Mr. B. Walker.*—We have made the necessary inquiry, and find that Dr. George Harley has not abandoned the idea of publishing the case in detail. A variety of other matters have, however, hitherto occupied his attention. We trust ere long to be able to lay it before our readers.

THE request of *Dr. G. D. Beebe* (Chicago) shall be acceded to in an early number.

### NARBERTH UNION.

*To the Editor of* THE LANCET.

SIR,—I beg to draw the attention of the readers of THE LANCET to an advertisement for a medical officer to the 3rd district of the Narberth Union, which appears in your impression of the 8th inst.

During the past fifteen years I have held that post, attending on an average 200 cases annually, scattered over sixteen parishes, possessing an area of some 40,000 acres, entailing the necessity of travelling on horseback a distance of ten, twelve, and frequently fourteen miles through a mountainous country, inaccessible in many parts to every kind of vehicle, in addition to supplying all medicines, for the munificent salary of £35 per annum. In the absence of any suitable place of residence within the district, I had to undergo the unpleasant ordeal of re-election yearly, which, with the arduous nature of the duties in comparison with those of the other medical officers—each officer being paid the same,—induced me, previous to again accepting the appointment, to ask for an increase in the salary. My application, as a matter of course, was rejected by the Board, the result being the issuing of advertisements intentionally to secure the services of some one as unfortunate as myself.

I append the number of cases attended by each medical officer during a period of two and a half years, ending 29th September, 1870, abstracted from the published returns of the union, by which any conscientious person cannot fail to see the justice of my appeal.

| | T. G. B. | C. L. C. | T. H. N. | M. G. E. |
|---|---|---|---|---|
| Sept., 1868 ... | 59 ... | 59 ... | 56 ... | 105 |
| March, 1869 ... | 72 ... | 66 ... | 50 ... | 96 |
| Sept., 1869 ... | 60 ... | 34 ... | 36 ... | 96 |
| March, 1870 ... | 50 ... | 37 ... | 49 ... | 122 |
| Sept., 1870 ... | 54 ... | 55 ... | 54 ... | 166 |
| | 295 | 251 | 245 | 585 |

Yours obediently,
Narberth, April 8th, 1871. MAURICE G. EVANS, M.D.

*Inquirer.*—A new edition of Aitken's Science and Practice of Medicine is at press; but as it is undergoing a thorough revision by the author, we are not yet in a position to say exactly when it will be ready—about three months perhaps.

*U. C. L.* will get the information he wants from the Secretary to the Ladies' Medical Education Defence Committee, Edinburgh.

### THE CITY POLICE.

IN reference to the statements which have lately appeared in the newspapers relative to the want of proper house accommodation for the City police, who are required by their regulations to reside within the City limits, we are glad to perceive that an endeavour is to be made in the Common Council, either to abrogate the rule of residence, or, failing that, to procure the erection of the necessary dwellings by the Corporation. It can hardly be surprising that married constables object to take their wives and families into police barracks next door to a small-pox infirmary.

*Delitus* is thanked. Press of other matter must be our excuse for not noticing the subject.

*Assistant-Surgeon Duke.*—We regret that we are unable to insert our correspondent's communication. He will perceive that the subject discussed by him has not escaped the attention of ourselves and others, and it is very probable that his strictures are founded, at least in some degree, on a misconception of what was really intended. Be this as it may, we scarcely think it advisable that the subject should be approached from any other than a scientific point of view.

*Mr. J. Ferrier Clarke.*—Mr. Cooper's address is 28, Duke-street, Westminster. We believe his method has given very general satisfaction.

*Dr. Otho F. Wyer*, (Leamington.)—The report, when received, shall be attended to.

### THE SMALL-POX EPIDEMIC.

*To the Editor of* THE LANCET.

SIR,—Just now, when measures for checking the spread of small-pox are engaging so much attention, allow me to suggest a very simple plan which I think upon trial would be found far more effective in bringing about the desired result than any or all of the means hitherto tried. Let the respective parishes make every general practitioner a parish vaccinator *pro tem.* (or as long as the epidemic lasts) by paying him a moderate fee for every case of successful vaccination or revaccination in small-pox houses where the inmates are not in a position to pay for themselves. The general practitioner is continually called to cases of small-pox in crowded houses and localities where strong objections are made by the relatives to removal, and they have consequently to be treated at home. Amongst the middle and better classes, in the event of an outbreak, the attendant at once revaccinates all the members of the family at their own cost; but with the poor in crowded dwellings the case is very different. The surgeon cannot undertake to revaccinate several families gratuitously, and he therefore recommends them to go at once to the parish vaccinator, which they (in the majority of cases) refuse or fail to do, urging as objections that the going in the morning by the husband necessitates losing half a day's work; that the wife cannot find anyone to take the children, and cannot leave home herself; that they dislike the parish doctor, and are not going to be vaccinated from anybody's child, &c. Meantime the disease attacks another inmate, and so extends. Now, nothing would be more easy than the removal of these objections by the medical man of their choice. If he offered to revaccinate them, they would readily submit, and feel a pleasurable delight in having foiled the parish officer; and this he could do either when visiting the patients, or in the evening when the day's work was done. There are numbers employed in business houses from an early hour in the morning, who would still be going about unprotected were it not for evening vaccination—a practice I have adopted for some time, and with the best results.

Let the parishes at once give every practitioner an interest in limiting the ravages of so direful a scourge, and the effect, I am convinced, will be a speedy check to its extension, and a rapid decrease in the mortality.

I am, Sir, your obedient servant,

Dudley-grove, April 17th, 1871. A. PRINCE, L.R.C.P. Ed.

*Mr. Edward Domville*, of the Devon and Exeter Hospital, writes to us to suggest that the long thigh splint in ordinary use might be adapted to any patient by having it divided into two parts, which should slide upon one another by means of thumb-screws working in a slot. The idea, though ingenious, is not novel, and will be found on reference to Fergusson's Practical Surgery to have been adopted many years ago by the Messrs. Weiss in the manufacture of an iron splint intended for the leg or thigh, which, however, has not displaced the simple lath or Liston's splint.

*H. S. G.*—If the prescriber means "take six ounces of water," he must write "aquæ uncias sex." If he means a "sufficiency of water" to bring the mixture up to a certain quantity, he must say "aquam ad" or "aquam usque ad," &c. Our correspondent is quite right in calling attention to a distinction which the profession does not always observe.

*W. H.*—Apply to the Commissioners in Lunacy, Whitehall-place.

*Mr. W. D. Killick* (Chepstow) evidently does not read his LANCET with due punctuality. He will find his query as to the Whitworth scholarships attended to in our number for February 18th, 1871, p. 237, second column, twenty lines from the top. *Voila!*

*Dr. Henry Granshaw's* (Ampthill) paper shall, if possible, appear next week.

### A SIMPLE AND AGREEABLE MODE OF ADMINISTERING COD-LIVER OIL.

*To the Editor of* THE LANCET.

SIR,—The modification of the fishy taste of cod-liver oil by a method suggested by Carlo Pavesi, which appears in your last impression, suggested to me the idea of submitting to your perusal that in use by myself.

A variety of methods have from time to time been suggested in order to render the administration of cod-liver oil easy and agreeable; but I have found none so efficient as the following:—Direct the patient to place a few grains of chloride of sodium on the tongue before taking the prescribed dose of oil (a piece of bread may be eaten after if preferred). With this simple adjunct patients who before rejected it will take the oil with apparent relish, describing the taste as that of herring or sardine.

I am, Sir, yours obediently,

Bicester, Oxon, April 17th, 1871. AUBREY WICKS, L.R.C.P.S.E.

### A VALID EXCUSE.

A SANITARY inspector of the Strand Union, in which small-pox still prevails, was summoned as a juryman in the Court of Common Pleas the other day. His duty being to visit the dwellings of small-pox patients and to disinfect clothes, he pleaded that its performance was incompatible with his sitting in the jury-box. The excuse, invalid in one sense, proved very valid in another. His Lordship quickly "concurred"; and, though the Court was crowded, the inspector was allowed to "make tracks," compared with which a straight line (which, according to Euclid, is the shortest way between two points) was a curved and devious route.

*Mr. J. Bland, jun.*—By all means try the experiment. We shall be glad to hear the result, and shall be exceedingly astonished if it agree with our correspondent's hypothesis.

*A Subscriber.*—Every duly qualified medical practitioner is exempted from being balloted for the militia, according to the second schedule of the new Army Regulation Bill.

*R. H. N.*, (Glasgow.)—For medical pathology, Reynolds's System of Medicine (Macmillan); for surgical pathology, Mr. Paget's Lectures (Longmans), and Holmes's System of Surgery (Longmans).

*M. N. O.*—We will endeavour to bear our correspondent's request in mind.

### HYDROPHOBIA.

*To the Editor of* THE LANCET.

SIR,—As there have of late been several cases of hydrophobia, and will in all probability be more as the season advances, I feel constrained to make known, through your valuable medium, a course of treatment which my father (the late Dr. Harland, of Scarborough) pursued with great success in sundry cases of tetanus, and which he thought might also prove beneficial in hydrophobia, which he was inclined to regard as a kindred disease of the nervous centres, and principally seated at the base of the brain.

In three cases of tetanus arising from gunshot wounds in the leg below the knee, he avoided amputation, although considerable portions of bone were shot away; in one case, about two inches, with the muscles much lacerated. Lock-jaw set in, however, after the lapse of a few days, which he subdued by the following treatment:—He introduced a seton in the back of the neck (rubbed with cantharides ointment, to hasten its action), and applied a mustard plaster the whole length of the spine, gave the patient sundry doses of cocculus indicus pill, &c., and administered mild but oft-repeated doses of chloroform (on a handkerchief) during the paroxysms, which in one case were very frequent and obstinate. Each patient recovered without recourse to amputation.

Yours truly,

Brompton, Yorks, April 11th, 1871. H. S. HARLAND.

P.S.—Should any medical man have the chance, and try the above remedies in a case of hydrophobia, I shall feel obliged if he will kindly let me know the result.

*Vorwärts.*—We believe most surgeons are agreed that immobility between the bones after excision of the knee gives the patient the best use of the limb. In a patient of Sir Wm. Fergusson's, a woman of twenty, operated on in 1856, there was some motion between the bones; but, the disease recurring, amputation became necessary. Consult Swain on Injuries and Diseases of the Knee, and Butcher's Operative and Conservative Surgery.

A CORRESPONDENT is desirous of ascertaining the name of some work on Diseases of Cattle that would prove useful to him for reference.

*Mr. John Glanville*, (Trinidad.)—We can make no promise as to their insertion. If forwarded, they shall, of course, have consideration.

*F.R.C.S. and M.B.*—We do not think the practice is to be commended. It is not in good taste, and we hope the holders of the higher degrees, at any rate, will discountenance it so far as to avoid it.

THE request of *Mr. Dickinson* (Henrietta-street) shall, if possible, be complied with.

*Mr. Meymott.*—9, Union-court, Old Broad-street.

*Student* wishes to be informed where to find lessons on practical astronomy, with the use of instruments.

*Mr. S. F. Bagnall's* (Preston Infirmary) request has been complied with.

### OCCURRENCE OF SMALL-POX DURING PREGNANCY.

*To the Editor of* THE LANCET.

SIR,—In your journal of March 4th last you call upon those who have observed the relations between small-pox and pregnancy to publish their experience. I have the honour of sending a short account of two such cases.

Mrs. E—— presented, on December 20th last, a rather dark variolous rash. It occupied the sides and legs, and had appeared suddenly after general uneasiness which had lasted the whole preceding week. A few pimples were observed on the face at the same time; feverishness, cough, and great general discomfort. On the 25th the pustules were dry, and the patient left her bed on the 26th. High fever recurred on the 31st, with severe pain in the knee, hæmoptysis, and brown tongue. A blister to the knee. On the morning of Jan. 2nd, approaching miscarriage; venesection. The premature birth (five months) took place in the evening. No untoward symptoms; some hydrarthrosis of the knee, which proved very obstinate for a long time.

Mrs. D——, about nine months pregnant, had, on the 24th of December last, sickness and fever. On the 25th same symptoms. On the 26th, in the morning, the sickness recurred, and there was much tightness of chest. Venesection. The patient gave birth, one hour after the bleeding, to a well-formed living child, presenting all the appearance of health. The fever and oppression continued, but the lochia came away satisfactorily. On the 27th, in the morning, the lochia continued, but the fever and oppression remained unabated. Papules now appeared on the whole body and on the face. On the 28th no more lochia; and on the 29th the papules took an incomplete development. Mucous obstruction in the trachea, and death in the evening.

I have the pleasure of placing these two cases in your hands, leaving you to make of them whatever use you may think fit.

Your obedient servant,

Bayonne, March 20th, 1871. C. DELVAILLE, M.D.

### The Examination of Dangerous Lunatics in Ireland.

The following statement, signed by the Dublin police magistrates, puts the hardship inflicted on Irish dispensary physicians, in requiring them to certify as to the case of dangerous lunatics, in a very striking light. It is certainly somewhat surprising that, whilst the 16th clause of the Charities Act imposes this onerous and unjust obligation on dispensary medical officers, it also gives power to the Commissioners to take into account the probable extent of such extraordinary duties, in fixing the amount of the salaries of such medical officers as are particularly affected by it. This power they have, it appears, neglected to exercise, and notably so in the cases of Drs. Curran and Speedy. We learn that Sir Dominic Corrigan has interested himself in this subject, and that there is great probability that the Irish Lord Chancellor will be induced to throw the weight of his influence into the scale in favour of the dispensary physicians. The statement runs thus:—

On referring to the Annual Report of the Commissioners for Administering the Laws for the Relief of the Poor in Ireland, we find that the total number of dangerous lunatics actually certified for by the Poor-law medical officers of Ireland for the year ended September, 1869, was 921. There were, doubtless, many other cases in which their valuable time and assistance were afforded, but which they considered unsuited for admission to an asylum. The great extent of some of the districts must make this duty very laborious and extremely troublesome (two justices being required to adjudicate) in the country parts. We would, however, particularly draw attention to the medical officers of Blackhall-street Dispensary, No. 3, North City, in whose district all the Dublin police business is transacted. We find that these gentlemen have been obliged to certify for 182 dangerous lunatics during the year 1869. They have frequently examined others who were not insane. It thus appears that under this Act the important and responsible duty of examining and certifying for the dangerous lunatics of Dublin, containing a population of over 314,000 persons, is imposed upon the two medical officers of the above district, being a fifth of the total number certified for in the whole of Ireland—a fact that we feel inflicts a great hardship on those two gentlemen, Drs. Curran and Speedy, and which, we think, could hardly have been anticipated in the framing of this Act.

In conclusion, we beg to remark that, owing to the present state of the law on this subject, it is with regret we are unable to order any remuneration to these gentlemen, who occupy a high professional status, who have so well performed this duty up to the present, and on whose time this unremunerative labour must be a very great tax; and in our opinion it is only just and reasonable that they should obtain either a fixed salary or a fee for their professional services in each case in which they assist us with their skilled evidence.

Given under our hands at Inns-quay Police Court, Dublin, 6th, April, 1871.

J. W. O'Donnell, Chief Magistrate.
Wm. Allen, C. J. O'Donel, J. H. Barton, E. S. Dix, } Divisional Magistrates, Dublin.

*Inquirer*, (Forest-hill.)—We believe that half a guinea is a very usual midwifery fee for the members of provident dispensaries, as it is certainly a very usual one in many rural districts. There can be no rule in such matters but a local one, and every man should take care that his fees are not lower than those of his neighbours of similar standing to himself.

*J. W.* (Tenby) is thanked for his disclosure; but the case is beyond our jurisdiction.

*Dr. H. Trimmer*, (Gamlingay.)—The alteration which our correspondent desiderates in the law cannot, we fear, be entertained. Let him apply however, to Dr. Seaton, Privy Council Office, Whitehall.

*Mr. A. H. Neath*, (Hayward's Heath.)—The communication shall be inserted next week.

*An Anxious Father.*—The names mentioned are unexceptionable.

### Consultees.

*To the Editor of* The Lancet.

Sir,—Your insertion on April 1st of a request for hints of treatment in a case of pruritus vulvæ suggests to me to make a counter-inquiry that I have often thought called for: Has "Chirurgicus," as he miscalls himself, done his duty to himself and his patient by having a consultation on the case? As she is called a "lady," we may suppose a guinea or two might be forthcoming for a consultation. If the object be merely to save his patient's pocket, or if it be that strange jealousy of a patient obtaining relief from any other advice than his own, in either case no such assistance as hints from correspondents of a public journal are in any way called for, or desirable or justifiable.

Your obedient servant,
April 5th, 1871. A Consulting Physician.

*** Consultees are a most useful class in the profession, and ought by all means to be encouraged. But a general practitioner should not from mere want of inquiry fail to cure his patient, which is his primary duty. It is time enough to call in a consultee in a chronic case when the practitioner has exhausted the suggestions of medical literature; and we think it a legitimate use of the medical press to afford an opportunity for discussing the treatment of troublesome or difficult cases.—Ed. L.

### Medical Degrees at St Andrews.

The letters of *Dr. Leonard Sedgwick* and *Prof. O. H. Bell* on this subject are unavoidably postponed till next week.

*Mr. J. C. Cooke*, (Newent.)—We are always glad when the honest and impartial view turns out to be the correct one. It is unnecessary to insert our correspondent's letter.

*A. B.* (West Bromwich) is referred to the well-known work of Dr. Brinton. There is also, we believe, a book on the same subject by Dr. Dobell.

*Homo* should consult our advertisement columns.

*A. H. F.*—The principal and most effective test of carbolic acid in the urine is the dark (almost black) colour which the latter assumes when any considerable quantity of the acid is being eliminated in this way. This, of course, is easily distinguished from "smokiness" produced by blood, as there are no corpuscles and no coagulation of albumen by nitric acid and heat.

### A Question in Medical Ethics.

*To the Editor of* The Lancet.

Sir,—Suppose a gentleman, A., has a difficult case—say an operation in midwifery,—and he calls B. in consultation. They agree as to the case and treatment; but, owing to its peculiarity, they wish C. to see it, and give his opinion on it. C. comes, and the case is explained to him, and he proceeds to make his examination; and without more ado, without consulting A. or B., without expressing an opinion on the matter at all, he proceeds to operate at once. Was C. justified in this course? Or should he not rather, having made his examination and formed his diagnosis, have given his opinion, and left it to A. (whose case it was) to finish it?

By giving your view on this question, you will oblige, yours truly,
Manchester, April, 1871. Greenhorn.

*** There can be no doubt that the conduct ascribed to C. would be extremely improper. Under all circumstances a consultant should confer with the previous attendants before even expressing an opinion to the patient or the patient's friends; much more, then, before attempting to carry out his opinion into actual practice. Of course it is possible that C. may have been mistaken, and may have supposed that his hand was in request as well as his head.—Ed. L.

### Vaccination.

*To the Editor of* The Lancet.

Sir,—Taking a lively interest in the numerous letters which appear in your journal from week to week in reference to the subject of vaccination, I may state that I have acted as public vaccinator for an agricultural parish in the south west of Scotland for the last twelve years, and during that time I have on an average vaccinated about 50 children per annum, and during the whole of that period I have only had to return 6 cases as insusceptible. The plan I adopt is as follows:—When I vaccinate a healthy infant, I invariably on the eighth day either call or get the mother to bring the child to my residence, when I fill as many capillary tubes as I can while the lymph remains clear. When vaccinating I merely break off the melted ends of the tube, and blow the matter on the child's arm; then with a sharp, clean lancet I make very slight incisions, so as to draw as little blood as possible. If hæmorrhage is profuse, I think the vaccine virus is often lost. I always oblige the attendant not to dress the child until the wound is quite dry. I have observed in general, if the operation is to be successful, that a wide, red areola, like what is seen after the sting of a bee, will appear. I prefer the lancet to Dr. Husband's scarificator as it is not so painful. I am, however, sorry to say that, with such success in vaccination, several cases of variola have appeared in the parish, but of the modified type.

Yours very truly,
Castle Douglas, April 4th, 1871. G. Skene, L.R.C.S. Edin.

Corrigenda.—Two errors escaped correction in Mr. Hill's letter, which appeared in our last issue, page 523. "Talipes equino valgus" should read "talipes *equino*-valgus"; and "calcaneus," *calcaneum*.

Communications, Letters, &c., have been received from—Prof. Parkes, Netley; Prof. Bell, St. Andrews; Mr. Hilton; Dr. M. Duncan; Dr. Argles; Mr. Spence; Dr. Bogg, Louth; Dr. Sedgwick; Mr. Hyam; Dr. Lister, Haydock Lodge; Dr. Jay, Scarborough; Mr. David-, Southsea; Mr. Willis, Cheltenham; Mr. Eddison, Leeds; Mr. Kendall; Mr. Ames, Darlington; Mr. Collins; Mr. Evershed; Dr. Gramshaw, Ampthill; Mr. Morrill, Bury; Dr. Woodward, Worcester; Mr. Baynes; Mr. Lewis; Mr. W. Smiles, Aylesbury; Mr. Wright; Mr. Glen; Mr. T. Morgan; Dr. Wyer, Leamington; Mr. Sharland; Mr. Hampson; Mr. Harleyson; Dr. Warden, Haslbowline; Dr. Fulton, Toronto; Mr. Harding, Dursley; Mr. White; Dr. West, Manchester; Mr. Dempsey; Mr. Steyning, Rye; Mr. Mogford; Dr. Wilkinson, Lincoln; Mr. Soame, Dawley; Mr. Smith; Dr. Orton, Hornsey; Mr. Cooke, Newent; Mr. Coleman; Mr. Rodgers; D. Trimmer; Dr. Foster, Leeds; Dr. Gaitskell; Mr. Goodwin; Mr. Roberts; Mr Exton; Mr. Newth, Hayward's Heath; Dr. Budgett; Mr. Dixon; Mr. Orr; Mr. Mancor, Glasgow; Mr. J. D. Hill; Dr. Black, Glasgow; Mr. Leeming, Kendal; Dr. Heslop, Birmingham; Mr. Sampson Gamgee; Dr. Duke, Meerut; Mr. Steward; Dr. Fowler; Mr. Towling; Mr. Morris; Mr. R. Craven; Dr. Dey, Torquay; Mr. Lalor; Dr. Carroll, New York; Dr. Male, Lincoln; Dr. Dunbar, Creetown; Mr. Dent; Mr. Bagot; Mr. Knowle; Mr. J. Lee; Mr. Skinner; Dr. Balbirnie; Mr. Cantor; Mr. Jukes; Mr. Dickson, Buxton; Mr. Gane, Ottawa; Mr. R. Toms; Mr. Ogston, Aberdeen; Mr. Baxter; Mr. Richards, Faringham; Mr. Manby; Dr. Delvaille, Bayonne; Mr. Hunt, Stockton; Dr. Wade; Dr. Sankey, Sutton Valence; Dr. H. Vane Best; Mr. Simms; Mr. Fenn; Mr. Hemming, Dursley; Mr. Fryer; Mr. T. Jones; Mr. Curry, Winchester; Mr. Powell; Mr. Austin; Dr. Blandford; Mr. J. P. Clarke, Farnworth; Mr. Evans; Dr. J. W. Ogle; Mr. Bland, jun.; Dr. Prince; Dr. Gayton, Homerton; Dr. Phillips; Mr. Wood; Mr. Lozan; Mr. Etty; Mr. Lawrence; Mr. Hope; Dr. Southey; Mr. Thurman; Dr. Dickinson; Dr. Weeks; Mr. Bagnall; Mr. Wise; Mr. Meymott; Mr. C. Davidson; Mr. Hyslop; Dr. Munro; Dr. Thomas, Glasgow; Dr. Steele; Mr. Whiting; The Editor of the *Wilts and Gloucester Standard*; Omicron; Surgeon; F.R.C.S.; Query; A. Z.; Constant Reader; Homo; The Committee of the Manchester Medico-Ethical Association; M.D.; &c. &c.

*Newcastle Daily Chronicle, Birmingham Morning News, Parochial Critic, Middlesborough Exchange, Canada Lancet, New York Semi-Weekly Times, Birmingham Daily Gazette, Dorset County Chronicle, Gateshead Observer, North Star, Wilts and Gloucester Standard, Rock*, and *School Board Chronicle* have been received.